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A Comparative Study of Marxism and Critical Realism

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**A COMPARATIVE STUDY OF MARXISM AND
CRITICAL REALISM**

by

Tianchan Jiang

Thesis submitted for PhD

King's College London

Department of European and International Studies

Abstract

In my thesis I attempt to compare Marxism with critical realism. My conclusion is that critical realism is incapable of supporting Marxism. My understanding of Marxism is based on *Capital*. In *Capital*, the method of social exploration employed by Marx is historically contextual. Capitalism provides Marx with the condition to construct his method, so that the explanation of capitalistic production is realised. In Marx's explanation, the calculation of surplus value is important. This presupposes the equation of the amounts of value possessed produced commodities.

Conversely, the critical realist method is trans-historical, because it relies on a questionable ontology. Further, critical realist ontology founding these methodological principles is problematic. The transcendental arguments on this ontology relies, as exemplified by Roy Bhaskar and Tony Lawson, are weak.

On the basis of their social ontology, critical realists propose a methodology of social sciences is proposed. Thanks to it, critical realism criticises mainstream economics and supports heterodox economics, including Marxism. This argument, however, is problematic. For one thing, mainstream economics is condemned for mathematic formalism. This critique

presupposes a distinction between open systems and closed systems. Because critical realism is ambiguous about the definition of open systems and closed systems, its critique of mainstream economics is questionable. In addition, a critical realist methodology is compatible with utilising mathematics to study open systems. Therefore, it is also compatible with mainstream economics.

Finally, in terms of critical realism, Marx's account of capitalism is read as an application of a trans-historical method strategy. This contradicts my idea that the method adopted by Marx presupposes a social-historical context: capitalism. Second, being interpreted in terms of critical realism, the explanatory power of Marx's theory is reduced, in that the calculation of surplus value in his theory is excluded.

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Introduction

In *Philosophy and The Idea of Freedom*, first published in 1991, Roy Bhaskar delineates the relationship between Marxism and critical realism:

In the first place, radical social change presupposes depth realism; Marx's work at its best illustrates critical realism; and critical realism is the absent methodological fulcrum of Marx's work ... secondly, the transitive dimension in critical realism is congruent with a Marxist theory of society and is influenced by it. Thirdly, critical realism employs many Marxian analogues in the analysis and critique of position and idealist epistemologies generally – e.g. the fetishism of the fact form intrinsic to normal science – but the validity of the concept in the new domain is logically independent of its source domain from which it was drawn... finally, there is an elective affinity between critical realism and historical materialism, in that inter alia critical realism is a heterocosmic instance of the emancipatory transformation socialism aspires to achieve. (Bhaskar 2011b, 143)

The stance of this paragraph is, firstly, that some aspects of critical realism are influenced by Marxism. In an interview, Bhaskar makes clear that his concepts of transformation model of social activity are influenced by Marxism.¹ Marxism, however, is not the only source of critical realism. Secondly, there are affinities between critical realism and Marxism.

According to Bhaskar's reading of Marxism in one appendix of this book, Marx's method is

¹ In *The Formation of Critical Realism*, Bhaskar states: 'Marx and particularly his conception of praxis, which formed the basis of the transformational model of social activity (TMSA)'; 'structure and the whole idea of the contrast between structure and events, as you could find in the work of Claude Lévi-Strauss and the structuralists, but especially of ... Louis Althusser' (2010, 33-34).

thought to incorporate three aspects: deep realism, naturalism and explanatory critique.

Notwithstanding this, Marx does not explicate these aspects. It is critical realism, and especially Roy Bhaskar, that systematises and develops them. Therefore, the third point is the methodological support of Marx's work by critical realism. The final and the most important point is Bhaskar's cautious distancing of critical realism from Marxism. This is demonstrated not only by the parallels between critical realism and Marxism, but also by the emphasis on the logical independence of critical realism. He implies a stance that, despite its defence of Marx, critical realism is not located in the boundaries of Marxism: firstly, Marx's theory is read in terms of critical realism, but not vice-versa, and secondly Marxist theories are used with reference to critical realism. This stance, I think, is dominant in critical realism.²

² See *Dictionary of Critical Realism*, 'The dominant view within CR seems to be that it smooths the Marxist/non-Marxist divide and thus is compatible with, and underlabours for, a wide range of critical research programmes in the human sciences' (Nielsen 2007, 287). There are critical realists who are Marxists, such as Andrew Collier, Sean Creaven and Bob Jessop. One way they differ from other critical realists is their self-commitment to being Marxists. Secondly, they state that some concepts in critical realism are contributing to the renovation of Marxism: for instance, emergentist Marxism by Sean Creaven. Thirdly, sometimes, Marx's theory provides them with the standpoint to assess and criticise critical realism. Andrew Collier, in 'Dialectic in Marxism and Critical Realism', states, 'I have claimed that Marx's two crucial nuggets of dialectic, from the standpoint of human emancipation, are the ideas of structural contradictions and inversions. We must now ask how the alethic truth of dialectic, as defined in Dialectic, relates to these' (2002, 165). Sean Creaven opposes Bhaskar's spiritual turn, condemning its idealism. In 'Resisting the Theistic Turn', Creaven states, 'What Hartwig really has in mind is an objection to a specific aim of AST [*Against the Spiritual Turn: Marxism, Realism and Critical Theory*]: namely, that I reject that "ultimate" ontological reality is enchanted or meaningful in the specific sense of being spirit, or conceptuality, or God... Materialism involves the position that the physical world does not possess any intrinsic moral or self-conscious meaning or purpose... Since human beings are the product of evolutionary emergence, rather than an intrinsic or necessary aspect of "ultimate"

Firstly, developing Marxism is not Bhaskar's purpose. He prefers to consider his philosophy as a defining moment in the history of philosophy. To be specific, his underlining of ontology stems from the capture of the epistemic fallacy: the conflation of ontology and epistemology (Bhaskar 2010, 36). In Bhaskar's view, both Kant and empiricism commit this mistake. In addition, Bhaskar's theory of dialectics is considered to be an overturning of western philosophy since Plato: he highlights the privilege of absent over positive, whilst the tradition of western philosophy is confined to positive existence.³ Finally, Bhaskar's spiritual turn and philosophy of Meta-Reality presupposes his insight into a deficiency of western culture: it lacks the perception of the inner world (Bhaskar 2010, 149).

Secondly, critical realist theories of economics are distant from Marxism. This tendency originates from Tony Lawson, who characterises critical realism as a supporter of heterodox economics but not only of Marxist economics. This stance is held by critical realists such as Paul Lewis, Peter Nielsen and Jamie Morgan. Given the distinction between mainstream economics and heterodox economics, critical realism criticises the former, whereas it

depth reality, it is defensible to suppose that neither values nor moral rules are intrinsic aspects of the non-human world' (2012, 275).

³ For Bhaskar, western philosophy is characterised by ontological monovalence, because it rules out absence and change, confining only to positive and present (Bhaskar 2010, 138-39; Hartwig 2007, 497).

supports the latter. Marxist economics is defended, because it is *one* of several heterodox economic theories. This strategy is based on critical realist ontology, which is clarified by Bhaskar; in general, this ontology argues that social reality is stratified. It is not exhausted by social events. Social structures are irreducible to social events. In addition, society is an open system which is defined by the lack of event patterns. Thirdly, society is different from nature, in that it is activity-dependent and concept-dependent. Therefore, experiments which are central to natural scientific research are unavailable to social study; scientists cannot isolate one social structure by establishing a closed system. Mainstream economics is criticised, because the ontological presuppositions by its methodology are inconsistent with critical realist ontology. Mainstream economic methodology is thus considered to be ‘poorly suited to the investigation of the socio-economic world’ (Lewis 2004, 1). On the contrary, heterodox economics implicates the ontology fortified by critical realism. Therefore, as Paul Lewis states,

A critical realist reading of heterodox economics suggests that many Austrian, Evolutionary, Feminist, Old Institutional, Intersubjectivist, Marxist, Post Keynesian and Social economists have emphasised the importance of adopting a methodology that is tailored to suite the nature of the socio-economic material under investigation, pitching their criticisms of orthodox economics and the case for their own preferred methods of economic analysis on grounds which presuppose (if only implicitly) something very like the socio-economic ontology delineated in critical realism. (Lewis 2004, 2)

Proponents of critical realism argue that it provides philosophical resources that can help heterodox economists to make explicit, clarify and systematise their insights into the nature of socio-economic being and its implications for appropriate methodology for economics. (Lewis 2004, 2)

Steve Fleetwood's reading of Marxism is an example of this standpoint. He states that critical realism is a Marxist philosophy: it locates Marxism on a secure ground. In Fleetwood's view, Marxism crosses three levels: philosophy, theory and practice (Fleetwood 2002, 2).

Notwithstanding several versions of Marxist philosophy, Marxism is still in demand of a full-blown Marxist philosophy of science, which supports Marxist theories and practices.

This demand is satisfied by critical realism, a philosophy developing outside of the sphere of Marxism and adding to it without taking anything away.

In summary, according to these critical realists, critical realism uncovers and conceptualises the methodology implicated in Marx's work. It is thus compatible with Marx's theory. In addition, critical realism supports Marx's theory. Firstly, the Marxist method, the operation of which results in an account of capitalism, is justified through critical realist ontology.

Secondly, critical realism disapproves of the enemy of Marxist economics, mainstream economics. It argues that the methods taken by mainstream economists are inapplicable to social reality. Given these properties, two questions arise in considering the relationship

between Marxism and critical realism. Firstly, does critical realism capture Marxist method, and, secondly, does critical realism support Marxist theory through its philosophy? This thesis attempts to address these questions. I will analyse the philosophical and the sociological concepts in critical realism, the theory by Marx in *Capital*, and critical realist readings of *Capital*. To convince readers of the importance of these issues, I will proceed from a debate between critical realists and Ben Fine.

Ben Fine finds many faults with critical realism in a series of articles: ‘Addressing the Critical and the Real in Critical Realism’, ‘Debating Critical Realism in Economics’, ‘Rethink Critical Realism: Labour Markets or Capitalism?’, and ‘Critical Realism and Heterodoxy’. In his view, critical realism is incapable of guaranteeing Marxist economics against mainstream economics. It is not critical enough since it has affinities with mainstream economics.⁴ Nor is it realist enough, because its methodological analysis does not address capitalism or capital. On the contrary, Marx’s theory is concentrated on the logic of capital and capitalistic society. Fine’s critique raises a debate between him and critical realists: Nielsen and Morgan. They propose that Fine’s assessment is based on an assumption that critical realism separates methodology and substantive theory. Given this assumption, Fine

⁴ As Fine states, critical realism shares three features with the mainstream ‘which are liable to blunt its critical edge’ (2004, 207).

states that critical realism is confined to methodology, whilst mainstream economics is interested only in theory. As a consequence, critical realism does not provide substantive theories in practice. Therefore, firstly, it is not critical since it fails in engaging with the mainstream. Secondly, critical realism is not realist, because it does not explain capitalism and capital. In Nielsen and Morgan's view, the assumption on which Fine based is misleading. Critical realism neither argues for the methodology-theory division nor stays confined to the former. The methodological analysis by critical realism relies on an abstraction of substantive economic theories. Critical realists reveal and disapprove of the ontological presumptions implied by mainstream economics. At this point, the critique provided by critical realism does not affect the practice of mainstream economists. Secondly, condemning critical realism for its being un-realist is inappropriate. For one thing, the definition of 'realist' in critical realism is different from that by Fine. In critical realism, the sense of 'realist' is philosophical. For another, critical realism is capable of being realist in the sense for which Fine argues. It does not preclude the substantive explanations of economic phenomena although Lawson, in its vanguard, has limited himself to the philosophy of economics. Finally, they state that Fine's counterposition of Marxism with critical realism does not consider the divergences amongst Marxists. Confronting this rejoinder, Fine clarifies that firstly he is not against the multiplicity of Marxisms; and, secondly, he acknowledges that critical realism develops

economic theories. The main substantive point disturbing him is critical realism's trans-historical methodology. According to Fine, 'Methodology can only go so far before it needs to confront its object of study and draw upon it for conceptual content that has itself to be transformed critically (and theoretically)' (2006b, 124). Fleetwood's theory of the labour market is introduced as a negative example. In Fine's view, the significance of the labour market emerges in capitalism. Therefore, an account of the labour market cannot be deployed in the absence of notions of capitalism. Nevertheless, the theory by Fleetwood appeals to universal categories of analysis without once deploying the notion of capital or capitalism (Fine 2007, 126).

I do not think Nielsen and Morgan's formulations provide a successful defence of critical realism against Fine's critique. Firstly, it is true that Fine's contrasting of critical realism with Marxism presupposes his understanding of Marx. Nevertheless, the multiplicity of Marxisms neither falsifies Fine's understanding nor justifies the critical realist reading of Marxism. As a consequence, appealing to the the multiplicity of Marxisms is an inappropriate way of resolving the controversy between critical realists and Fine. Secondly, Nielsen and Morgan's rejoinder omits one central point in Fine's statements: the methodological analysis of critical realism is trans-historical. Although critical realism could provide substantive theories of

socio-historical phenomena, the conceptualisation of these phenomena is an application of a trans-historical methodological formula.

The debate between Fine and critical realists provides me with resources to consider my review of the relationship between Marxism and critical realism. Firstly, there is a need to clarify that this thesis presupposes my comprehension of Marxism considering the multiplicity of Marxisms. My definition of Marxism is based on a reading of *Capital*. It is thus distinguished from the ways of interpreting Marx's theory in terms of the *Grundrisse* or the *Economic and Philosophic Manuscripts of 1844*. The latter works characterise important moments in Marx's intellectual career. However, they are not the reference point through which Marx's mature theory should be assessed. In addition, I think Marx provides a scientific explanation of capitalism: for instance, he reveals how capital accumulates under capitalist relations of production. Moreover, I disagree with a Hegelian interpretation of Marx's *Capital*. As I will demonstrate in this thesis, I think this interpretation weakens the explanatory power of Marx's theory.

Let me now turn to my strategy for considering the relationship between Marxism and critical realism. It is fine for Nielsen and Morgan to argue that being critical does not entail success

engagement with mainstream economics. In this thesis, the question of whether critical realism defends Marxist economics will be addressed by an exploration of the methodological analysis by critical realists and the philosophy presupposed by their analysis. To be specific, I will consider the characterisation of mainstream economics in critical realism and critical realist methodology. In addition, because the concepts of methodology are grounded in critical realist ontology, there is a need to consider the content of this ontology and the arguments vindicating it. Therefore, if critical realism is not critical enough, this is then explained by the weakness of its arguments.

In addition, the enquiry into whether critical realism captures Marxist method requires a consideration of critical realist readings of Marx's *Capital*. For critical realism, substantive theories result from the operation of research methods. In *Capital*, Marx provides a detailed substantive theory of capitalism and of capital. Therefore, the notion that critical realism reveals and conceptualises Marxist method implies that the Marx's account of capital is an application of the critical realist methodology. Therefore, a critical realist reading of Marx's *Capital* provides the subject-matter through which I penetrate the operation of critical realist methodology. Further, the difference between Marxism and critical realism is uncovered by comparing the critical realist reading of Marx with my interpretation of Marx. I argue that the

method adopted by Marx concentrates on the socio-historical context forming its object, whilst critical realist methodology is based on a universal ontology. Therefore, the account of capitalism by Marx is not the outcome of an application of ahistorical methodological principles. I will treat Steve Fleetwood's interpretation of *Capital* as an example to show the compatibility between critical realism and Marxism. Although Fleetwood is not a typical example of how critical realism in general leads its adherent to interpret *Capital*, his theory demonstrates the poverty of trans-historical methodology for Marxist economics. .

In Chapter One, I will argue that the Marxist economic method is historical. In *Capital*, the method taken by Marx is socio-historically contextual. Capitalism provides Marx with the conditions to construct his research, so that the explanation of capitalistic production is realised. Firstly, widespread commodity production provides Marx with the condition to capture the social average level of production through the productive situation of commodities. Secondly, the flourishing of commodity exchange facilitates the formulation of the concepts essential to his explanatory project: 'money', 'capital' and the form of value. Therefore, commodity exchange is the entry point for Marx to explore capitalistic society, a situation which makes Marx's method possible.

Given the conceptual implements covered in Chapter One, Marx's account of surplus value and his rejection of methodological individualism will be considered in Chapter Two. In Marx's substantive theory, the calculation of surplus value is important. This presupposes the equivalence between the amounts of values in commodities. Marx's rejection of methodological individualism is demonstrated in a conclusion: the intended consequence of the actions of capitalists is explained in terms of the kind of value of commodities of which this capitalist is unaware.

Chapter Three demonstrates that transcendental arguments, through which critical realism posits its ontology, are problematic. Firstly, the argument by Roy Bhaskar is a circular argument. Secondly, transcendental arguments are not applicable in revealing the ontological structure of nature. One way to solve the split between ontology and transcendental arguments is to accept the ontological status of ideas. This, however, results in idealism. As a consequence, I demonstrate that the critical realist ontology established by Bhaskar is weak. Because this ontology is the foundation of critical realist methodology, it implies that the methodology endorsed by critical realism is doubtful.

In addition, the approval of Marxism by critical realism relies on a critical realist reading of heterodox economics. Heterodox economics is approved because its ontological

presuppositions are compatible with critical realist ontology; mainstream economics is criticised because the ontology presupposed by it is incoherent with critical realism. This attitude towards economics presupposes a critical realist ontology of society. The operation of social structures is regular. Although social structures are ontologically irreducible to social actions, their existence depends on social actions and on concepts of social actions. Bhaskar's ontology of society is the foundation on which critical realist methodology of social sciences relies. In Chapters Four and Five, I will provide detailed explanations of these two aspects, clarifying their problems with them. To begin with, Bhaskar's social ontology and his account of social sciences are considered. Bhaskar establishes a transformational model of social activities. Based on this model, he challenges methodological individualism and hermeneutics. Two things need to be considered here. One is Bhaskar's tolerance of hermeneutics: notwithstanding not being exhausted by hermeneutics, Bhaskar states that social studies require this method. The other is that his theory is compatible with methodological individualism. Following this argument, Lawson's critique of mainstream economics is clarified. In Lawson's view, mainstream economics is condemned for its mathematical formalism: the ontological presupposition of this method is inconsistent with critical realist ontology. Because Lawson is ambiguous about the definition of open systems and closed systems, his critique of mainstream economics is questionable. In addition, a

critical realist methodology is compatible with the utilisation of mathematics to study open systems. Therefore, it is also compatible with mainstream economics. I then explicate Archer's morphogenetic approach and her assessment of conflation theories.

The theories by the three critical realists mentioned above influenced Fleetwood's reading of Marxism, which will be commented on in Chapter Six. In terms of the interpretation by Fleetwood, Marx's account of capitalism is read as an application of a trans-historical methodological strategy. This contradicts my idea that the method adopted by Marx presupposes a socio-historical context, capitalism. Additionally, when interpreted in terms of critical realism, the explanatory power of Marx's theory is reduced: for one thing, the calculation of surplus value is excluded; second, Marx's account of capitalism becomes more ambiguous in terms of Fleetwood's interpretation. As a consequence, critical realism fails to clarify and conceptualise the method adopted by Marx.

The final chapter addresses what we could learn from critical realism. The critical realist reading of Marx's theory demonstrates a failure to ground Marx's study in philosophy. In some versions of Marxism, the reliability of Marx's conclusions of capitalism appeals to his metaphysical insights into history. Herein lies a question: are these metaphysical insights

reliable? Dialectical materialism addresses this by an analogy between historical materialism and the natural sciences, whilst Lukács addresses this by subject-object identity. This gives rise to a tension between metaphysical insights and materialistic epistemology. Marx (1859) states, 'It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness'. The question arising from this standpoint is: are Marxists such as Lukács and Engels affected by the social environment they are situated in? Given materialistic epistemology, I think the answer is 'Yes'. This implies that the metaphysical insights by Lukács and Engels are changeable, or even disposed of, when a society changes. Supposing the reliability of the substantive theory of capitalism by Marx depends on metaphysical insights, then these insights might be invalidated by the failure of Marx's exploration of capitalism. The critical realist reading of Marx also confronts the tension between metaphysics that supports the validity of substantive theories and materialist epistemology, according to which theories are fallible.

Chapter 1 How Does *Capital* Support Marx's Materialism?

1.1 Introduction

With respect to the philosophical background from which Marx comes, his concept of materialism is a counterpart of German idealism. German idealism argues that the reality which human beings are capable of capturing is mind-constructed. Therefore, the cognition of men is to some extent self-reflection. Contrary to this, the materialism approved by Marx is firstly a metaphysical standpoint that reality is independent of a human being's mind.

Secondly, it combines an epistemological aspect: thought reflects but does not compose reality.⁵ It is noticed that in Marx's theory the latter aspect concerns two issues: one is the relationship between scientific knowledge and the external world, while the other is about the conditions needed for scientists to capture the world in practice (Marx 1859; 1993, 109).

Firstly, Marx suggests that scientific theories, including historical and social ones, express their objects' characteristics. Secondly, they imply that only in certain social conditions could scientists become conscious of these characteristics, in that scientists are social agents who are influenced by ideology and social situation. Therefore, some Marxists put emphasis upon the relationship between social-historical circumstance and sciences. Max Horkheimer, in

⁵ As Marx states: 'The idea is nothing but the material world reflected in the mind of man and translated into forms of thought' (1990, 102).

‘Traditional and Critical Theory’, proposes that sciences emerge from the process of labour-division in a capitalist system.⁶

On the viewpoint of materialism, three issues ought to be in consideration when analysing Marx’s account of capitalism. Firstly, is the object of Marx social-historical? In *Capital*, Marx explicates what he has to ‘examine in this work is the capitalist mode of production, and the relations of production and forms of intercourse [*Verkehrsverhältnisse*] that correspond to it’ (1990, 90). Marx also makes clear that England is the main example of his theory, because England is the typical example of capitalism throughout the period in which he is engaging. Secondly, is Marx’s account of capitalism free from ideology? Both Louis Althusser and Horkheimer state that Marx splits with capitalistic ideology. Althusser (2005, 28) argues that there is an epistemological break in Marx’s work around 1845, since when Marx leaves humanist ideology and develops historical materialism. Similarly, in the late 1930s, Horkheimer argues that Marx is on the opposite side of traditional theory. The

⁶ Horkheimer says, ‘Even if therefore the division of labour in the capitalist system functions but poorly, its branches, including science, do not become for that reason self-sufficient and independent. They are particular instances of the way in which society comes to grips with nature and maintains its own inherited form. They are moments in the social process of production, even if they be almost or entirely unproductive in the narrower sense. Neither the structures of industrial and agrarian production nor the separation of the so-called guiding and executory functions, services, and works, or of intellectual and manual operations are eternal or natural states of affairs. They emerge rather from the mode of production practised in particular forms of society’ (2002, 197).

questions are then about the method employed by Marx: firstly, what conditions does this society provide with Marx in order to explore capitalism and, secondly, given these conditions what research apparatus does Marx obtain?

This chapter attempts to address the questions mentioned above. I aim to demonstrate that it is thanks to capitalist society in which he is situated that Marx formulates his method of exposing capitalism. Therefore, the construction of his method is not in terms of, and argued by, an ontological picture of society in general. This distinguishes Marxism from critical realism. As I will delineate in the subsequent chapters, although critical realism shares some materialistic standpoints with Marxism, its *method* is established by referring to critical realist ontology. Therefore, the validity of this ontology is essential to justify critical realist methodology. As a consequence, whereas critical realists could provide substantive theories of capitalism, the *method* employed by them is not self-consciously contingent on capitalism.

My understanding of Marxist method is based on an analysis of the first three chapters of *Capital*. In the first section I will clarify that the function of commodity exchange at the beginning of *Capital* is to provide an entry point through which Marx captures production. This function is contributed by the capitalism in which Marx situates it, and therefore the

account of commodity exchange does not establish the existence of value. If the validity of the concept of value depends on its deduction from the account of the commodity alone, then Marx's arguments encounter some problems arising from his 'third thing' argument. Given the prevalence of commodity exchange, Marx conceptualises the form of value which is crucial to his exploration of capital valorisation. Following this section I will explain how Marx constructs the concept of capital. Starting from 'commodity', Marx conceptualises 'money' through which the definition of capital and of commodity circulation are formulated. My reading of this concept unfolding is different from the Hegelian interpretation of *Capital*. I demonstrate that the transition of concepts is clarified in the absence of an analogy with Hegelian logic. It proceeds from an abstract model of exchange actions, and is driven by the transformation and re-composition of this model.

1.2 The Starting Point of *Capital*: Commodity Exchange

'Many discussions of Marx's theory of value focus on a couple of pages in Section One of Chapter one of *Capital*' (Furner 2004, 89). Articulations in these pages are considered as an *argument* for Marx's concept of value. An account of commodities is the premise of this argument; proceeding from this Marx distinguishes value from exchange value and defines the former as the property of being the product of abstract labour. Presupposing this line of

inquiry, some scholars defend this argument while others criticise it. This section states that Marx does not vindicate his concept of value by deducing it from an account of commodity exchange. Instead, in capitalism commodity exchange provides Marx with a condition to penetrate production in a certain way.

1.2.1 The Flaw in the Identification of Commodity Exchange as the Premise from which Value is Derived

In Chapter One of *Capital*, Marx demonstrates that his exposition starts from commodities, in that ‘the wealth of societies in which the capitalist mode of production prevails appears as an “immense collection of commodities”; ‘the individual commodity appears as its elementary form’ (1990, 126). Following this, Marx provides an articulation of commodities through which the concept of value is introduced. His articulation is summarised as follows:

1. A commodity is a bearer of use-value and of exchange value.⁷ Use-value is a capability of commodities being able to satisfy the needs of human beings. ‘Exchange value’ is defined

⁷ I think there is some ambiguity in Marx’s usage of ‘use-value’. In *Capital*, Marx states,

- 1) The commodity is, first of all, an external object, a thing which through its qualities satisfies human need of whatever kind (1990, 125)
- 2) Every useful thing is a whole composed of many properties: it can therefore be useful in various ways (1990, 125).
- 3) The usefulness of a thing makes it a use-value (1990, 126).
- 4) This common element cannot be a geometrical, physical, chemical or other natural property of commodities. Such properties come into consideration only to the extent that they make the commodities useful, i.e. turn them into use-values (1990, 127).

as a relative price, the ratio of one commodity exchanged with another. Marx states,

‘Exchange value appears first of all as the quantitative relation, the proportion in which use-value of one kind exchange for use-values of another kind’ (1990, 126).

2. The exchange value of one kind of commodity reports the equality of commodities. Marx argues this from two perspectives. To quote him:⁸

A given commodity, a quarter of wheat for exchange, is exchanged for x boot-polish, y silk or z gold, etc. In short, it is exchanged for other commodities in the most diverse proportions. Therefore the wheat has many exchange values instead of one. But x boot-polish, y silk or z gold, etc. each represent the exchange value of one quarter of wheat. Therefore c boot-polish, y silk, z gold, etc. must, as exchange-values, be mutually replaceable or of identical magnitude. It follows from this that, firstly, the valid exchange-values of a particular commodity express something equal, and secondly, exchange value cannot be anything other than the mode of expression, the ‘form of appearance’, of a content distinguishable from it. (Marx 1990, 127)

5) Commodities come into the world in the form of use-value or material goods such as iron, linen, corn, etc. This is their plain, homely natural form. However, they are only commodities because they have a dual character, because they are at the same time objects of utility and bearers of value. Therefore they only appear as commodities or have the form of commodities in so far as they possess a double form, i.e. natural form and value form (1990, 138).

6) Everyone knows, if nothing else, that commodities have a common value form which contracts in the most striking manner with the motley natural form of their use-values (1990, 139).

According to Marx’s argument, the referent of ‘use-value’ is diverse. In terms of 3) and 4), this concept stands for things, while according to 6), it refers to the property of a thing.

⁸ It is interesting that in this paragraph, x boot-polish, y silk and z gold are not attached to units: for instance, z ounce gold. It might be because that it is proportion (exchange ratio) that is in consideration. Like Hegel, Marx states that the measurement of something is a combination of quantity and quality. Hence, if a proportion is not attached to a unit, then it cannot be measured. As a consequence, Marx seeks the unit of exchange ratio, and finally he connects it with socially necessary labour time.

Let us now take two commodities, for example corn and iron. Whatever their exchange relation may be, it can always be represented by an equation in which a given quantity of corn is equated to some quantity of iron, for instance 1 quarter of corn = x cwt of iron. What does this equation signify? It signifies that a common element of identical magnitude exists in two different things, in 1 quarter of corn and similarly in x cwt of iron, both are therefore equal to a third thing, which in itself is neither the one nor the other. Each of them, so far as it is exchange-value, must therefore be reducible to this third thing. (Marx 1990, 127)

3. Marx maintains that the equality of commodities can only be value, of which the substance is abstract human labour and the magnitude is determined by the socially necessary labour time required to produce them. Marx supports this with a negative argument: the equality of commodities cannot be based on other properties of commodities, it is thus attached to the property of being a labour product. Use-values, in terms of Marx, cannot act as the foundation of this equality. They result from diverse natural properties and are therefore bound up with diversity but not equality. As a result the equality of commodities depends only on their being products of labour. To quote Marx, 'There is nothing left of them in each case but the same phantom-like objectivity, they are merely congealed quantities of homogenous human labour ... as crystals of social substance, or ... they are values' (1990, 128).

This articulation *seems* to be a deductive argument.⁹ Marx argues that value, which is a property of being the product of labour, is implied by the relative prices of commodities.

Therefore the distinction between value and exchange value which is required by Marx's law of value is confirmed. The law of value cannot be upheld without this argument, and as a result Marx's law of value is challenged if one were to argue for the breakdown of this argument. Critics state that Marx has committed a logical fallacy here, as his argument proceeds either by changing the subject or by circular reasoning.

The first criticism states that Marx changes his subject in order to deduce value from exchange value. This standpoint is endorsed by Eugen Böhm-Bawerk and Anthony Brewer.

In Böhm-Bawerk's view, Marx aims to argue that value is a common property existing in all exchangeable goods. However, this conclusion is only derived by replacing all exchangeable goods with some goods produced by labour. Böhm-Bawerk states that, on the one hand, the subject-matter of Marx is all goods. Firstly, this is demonstrated by Marx's endorsement of Aristotle's view: 'There can be *no exchange* without equality and no equality without commensurability' (1990, 151). This quotation explains that it is exchange, but not some

⁹ See also Allen Wood's statement: 'In *Capital*, Marx expounds this law (the law of value) by presenting what his critics call his "proof" (or "dialectical proof") of it. Marx's exposition does look like a deductive argument'. (Wood 2004, 234)

exchange, that is in Marx's consideration. Also, Marx's proposition, 'the collection of commodities is a dominant appearance of the capitalistic mode of production', cannot be right if 'commodities' refers to all products.¹⁰ On the other hand, however, value, meaning the property of being labour products, cannot be the common factor of all exchangeable goods. For instance, the gifts of nature such as land are exchangeable. They have relative prices (or exchange values) in exchange. These gifts are nevertheless not produced by labour. In order to identify being the product of labour as the common property of all goods, Marx narrows his subjects by excluding some goods from his discussion. This trick is disguised by a 'deductive' argument. Marx concludes that only being the product of labour is the common property behind exchange values because no other properties can play this role. This argument, according to Böhm-Bawerk, is a negative argument, the success of which requires that 'everything that ought to be included is actually passed through the logical sieve' (Böhm-Bawerk 1898). Marx, nevertheless, does not proceed with his argument in this way. Instead he avoids considering other properties by substituting all exchangeable goods with produced commodities. As a result Marx 'only puts in the sieve those exchangeable things

¹⁰ To quote Böhm-Bawerk (1898), 'He (Marx) very cleverly prepares us for the acceptance of the subsequent limitation of the investigation to commodities by placing at the beginning of his book the apparently harmless general phrase that "the wealth of the society in which a capitalistic system of production is dominant appears as an immense *collection of commodities*." This proposition is quite wrong if we take the term "commodity" to mean products of labour, which is the sense Marx subsequently gives to it'.

which contain the property which he desires finally to sift out as "the common factor," and he leaves all the others outside' (Böhm-Bawerk 1898). In this case, Marx's argument is tautological: produced commodities are products of labour; they have in common the fact that they are produced by labour.¹¹

The second critique states that statements in the opening pages of *Capital* constitute a circular argument because the law of value, which ought to be argued, is the presumption of the argument. To quote the statement in *Marx's 'Capital' and Capitalism Today*,

Marx's theory of value supposes ... a number of conditions:

1. Exchange is conceived as an equation;
2. The ratio in which goods exchange (1 cwt iron = 1 ton coal = 1 bushel of wheat) are necessary ones and have general determinants;
3. These determinants are found in the need to distribute labour in quantities appropriate to the different quantities of product required by society;
4. This distribution, where there is a division of labour and production based on private property, equates labour-times through the exchange ratios of the products. (Cutler et al. 1977, 18)

Therefore, Marx's vindication of value is based on the law of value, which argues that the amount of a commodity's value regulates their exchange ratios. Nevertheless, because the

¹¹ See Anthony Brewer, 'this stratagem reduces his argument to the most trivial tautology: those things which are products of labour have in common the fact that they are products of labour' (1995, 117-118).

law of value presupposes a definition of value Marx cannot vindicate his concept of value by setting the law of value as a premise.

A rejoinder to these critiques is provided by Andrew Kliman. According to his argument all of these critics misunderstand the object of Marx's argument. Firstly, not all exchangeable goods are at issue. As Kliman states, 'What Marx means by "commodity" is (a) a useful thing that is also (b) the product of labour' (2000, 105). Secondly, Marx's argument is irrelevant to the law of value.¹² The law of value is about the quantitative relationship between value and exchange value: the exchange ratios of commodities are regulated by the amount of their values. What Marx does at the beginning of *Capital* is argue for the qualitative difference between exchange value and value. Given this, Kliman states firstly that Marx attempts to *establish* that value, unlike exchange value, is inherent in the produced commodity. Secondly, Marx realises this purpose by deducing value from commodity exchange.¹³ There are two

¹² As Kliman states, 'I will argue that the primary purpose of Marx's analysis at the beginning of *Capital* was to establish a clear distinction between value and exchange-value, to break from the conception of value as a ratio in exchange. This interpretation differs sharply from the common view that in the opening pages he was instead advancing a "labour theory of value" (i.e. a theory that exchange ratios are governed by relative quantities of labour), as a "first approximation" to reality' (2000, 99).

¹³ To quote Kliman, 'Marx does, of course, examine the "exchange relation", the expression of one commodity's equality with another. But, as we shall see, he does so in order to establish that value is intrinsic to the commodity' (2000, 100).

problems with Kliman's interpretation. The first one is that value cannot be *reasoned* as an intrinsic property according to his interpretation, and instead it is presupposed. Kliman states,

It is in order to demonstrate that value is indeed inherent in the commodity that Marx turns to the exchange relation; the subject-matter is not exchange, but the commodity. He notes that, because the commodity (a quarter of wheat) is exchanged for a variety of other things 'in the most diverse proportions', it 'has many exchange values instead of one'. its exchange-values are the other things for which it exchanges ... Marx is showing that, when value is taken to be exchange-value or relative price, value is not a 'property' of the commodity at all, but is another commodity, the physical body of the other commodity, itself. (Kliman 2000, 101)

The argument provided by Kliman is circular. Firstly, value's being an intrinsic property of the commodity is taken for granted. Secondly, this paragraph presupposes a definition of exchange value. Exchange value is 'the physical body of the other commodity'. Therefore, value is finally identical with exchange value, otherwise it cannot be a property of the commodity. Therefore I think that in terms of Kilman's reading, value is established to be internal to the commodity.

The second problem is that Kliman's interpretation opens with a proposition: the common factor implied by the exchange values of the commodity is its absolute price, the bearer of which is money. Following this, Kliman meets with a dilemma. According to some critics,

Marx provides ‘the third thing’ argument which states that a common property is implied through exchange relations. The establishment of this argument depends on representing exchange as an equation: ‘x commodity A = y commodity B’. If the equation is valid, it then implies that x amount of commodity A and y amount of commodity B have the same magnitudes. This magnitude is measured by the same quality. Opponents argue that this representation of exchange is questionable. For instance, in *Marx’s ‘Capital’ and Capitalism Today*, the authors state,

It is by no means inevitable that exchange be conceived as an equation. Exchange may be conceived as being equivalent, in the juridical sense, that is, that both parties to it agree to the equality of the terms of the exchange and receive what they were promised, but not as an equation (there is not being any substantive identity between the things exchanged). (Cutler et al. 1977, 13-14)

With respect to Kliman’s articulation, this critique is rejected inasmuch as the construction of the equation between commodities follows the identification of the equal content of exchange values. As he states,

Having first established this content, common to but distinguishable from all commodities, Marx can then turn back to the relation of two commodities and draw the conclusion that ‘a common element of identical magnitude exists in two different things ... Both are therefore equal to a third thing, which in itself is neither the one or the other’. (2000, 103)

The identification of the equal content is implied by Marx's initial premise: a commodity itself has exchange value. Therefore, as a quarter of wheat exchanges with boot-polish and with silk the latter two are 'interchangeable expressions of the same thing, the wheat's exchange value' (Kliman 2000, 101). According to Kliman, Marx's initial premise is supported by acts in everyday lives. For instance, 'it is a fact that – even apart from and a priori to any exchange of our wheat – we think and say that it “has” a value (or price) of, “is worth”, so much money. Moreover, we act on this basis' (Kliman 2000, 101-102). In terms of this articulation, I think it is reasonable to identify the equal content of exchange values as the absolute price, and this price is determined by agents and is materialised in money. This gives Kliman two choices. In order to protect the necessary connection between value and exchange value he ought to identify absolute price as value. This, however, is contrary to Marx's definition that value is socially necessary labour time. Alternatively, Kliman chooses to defend the distinction between absolute price and value. Unfortunately this implies that by proceeding from exchange value the theory is not directed to an exploration of productive labour. Therefore, the necessary connection which Marx aims to establish between exchange value and value is broken.

The problem with Kliman's interpretation of Marx demonstrates that the exploration of production is inadequate in identifying only commodities as the starting point. In the following section I will interpret the opening pages of *Capital* in another way.

1.2.2 The Function of Commodity Exchange as an Entry Point

In the beginning of *Capital* Marx states that it is plausible to take commodities as an entry point to explore capitalism because the collection of commodities is the appearance of the capitalistic mode of production. As Marx states,

The wealth of societies in which the capitalist mode of production prevails appears as an 'immense collection of commodities'; the individual commodity appears as its elementary form. Our investigation therefore begins with the analysis of the commodity. (Marx 1990, 125)

This proposition is a conclusion. As David Harvey states, 'It was the result of extensive enquiry, a long voyage of discovery, which led Marx to a fundamental conclusion: to unlock the secrets of the commodity is to unravel the intricate secrets of capitalism itself. We begin with what is in effect a conclusion' (2006, 1). Commodities are the appearance of the capitalist mode of production, not because products are sold in the market. What is presupposed by this articulation are Marx's analysis of the extraction of surplus value and its

realisation through exchange. In *Capital*, the extraction of surplus value depends on capitalistic relations of production (See Chapter 2). It also requires a difference between the value of commodities and capital. The value of commodities is determined by the socially necessary labour time (See Chapter 2). In addition, this articulation presupposes that the exchange of commodities through which surplus value is realised is restricted by the value of commodities. With respect to the structure of *Capital*, the argument and clarification of these aspects are after Chapter One. As a result the verification of this articulation at the beginning of *Capital* depends on the establishment of the law of value.¹⁴ This corresponds to my argument in section 1.1 that the deduction of value from exchange value presupposes the law of value. As a consequence, I think that the articulation when considered as a deductive argument is not to *argue* for the concepts of value and the law of value. Instead, this ‘deduction’ requires the latter two concepts, the validity of which is displayed and established in the development of *Capital*, as Marx (July 11, 1868) clarifies in his letter to Kugeleemann,

Science consists precisely in demonstrating *how* the law of value asserts itself. So that if one wanted at the very beginning to "explain" all the phenomenon which seemingly contradict that law one would have to present science *before* science. It is precisely Ricardo's mistake that in his first chapter on value [*On the Principles of Political Economy, and Taxation* , Page 479] he takes *as given* all possible and still to be

¹⁴ Worth noting is that the construction of the ‘deductive argument’ follows the idea that commodities are an appearance of the capitalistic mode of production.

developed categories in order to prove their conformity with the law of value. (Marx 1868)

Therefore, I think setting the commodity exchange as an entry point is not justified by the idea that the commodity exchange is the premise through which value is derived.

Herein lies a question: why does Marx choose commodity exchange as the starting point of *Capital*? My suggestion is that in capitalism the exchange between produced commodities is an entry point to penetrate production. Firstly, both exchange and production are given at the beginning of his analysis. Exchange provides a standpoint to examine production. The importance of production is built up in *The German Ideology*: the first historical act is the production of the means to satisfy humans' needs, the production of material life itself.¹⁵

Secondly, if Marx attempts to capture the average level of social production then his objects are produced commodities. The productive situation of commodities represents the typical level of manufacturing these kinds of products. This method to examine social production is possible when commodity production prevails in a society. Capitalism, the subject matter of Marx and the social condition in which he is situated implies commodity production. The relationship between commodity production and capitalistic relations of production are

¹⁵ Marx states, 'But life involves before everything else eating and drinking, a habitation, clothing and many other things. The first historical act is thus the production of the means to satisfy these needs, the production of material life itself' (Marx & Engels 2004, 48).

explained by the fact that in a capitalistic system capitalists have to sell products. In other words, if there are capitalistic relations of production, then the majority of products are intended for exchange. However, commodity production does not logically imply capitalistic production.¹⁶ In *Karl Marx's Theory of History: A Defence*, Cohen states that the capitalistic mode of production, or production for capital accumulation, is under the title of production for exchange but is not identical to it (Cohen 2001, 81). In a capitalist society it is almost *normal* that goods are produced for exchanging in the market.¹⁷ The prevalence of exchange and commodity production in capitalism justifies a way to examine social production. One knows the level of social production by investigating the production of commodities. Therefore, if we grasp the average level of social production by investigating the productive state of commodities, market exchange is then taken for granted.

¹⁶ Although commodity production does not logically imply capitalistic production, Marx states that the commodity form of the products of labour becomes **universal** when labour-power is a commodity (1990, 274. note 4.).

¹⁷ To quote Harvey, 'The exchange values expressed through the price system would be relatively easy to understand if we could unquestioningly accept two initial assumptions. First, one commodity functions as an unbiased *numeraire* – as money - so that the relative values of all other commodities can be unambiguously expressed as a price. Secondly, we live in a world of commodity production - all goods are produced for exchange in the market. In a capitalist society these two assumptions appear almost "natural" – they appear to pose no serious difficulties, if only because they reflect conditions with which we are very familiar' (2006, 9).

Additionally, given commodity production there are other points that could be clarified here.

The first is commodity fetishism. The prevalence of commodity production is bound up with market exchange. A market brings different kinds of products together. As a result isolated producers *from different sectors* of production are connected through exchange taking place between different kinds of products. The labour of the individual therefore asserts itself as a part of the labour of society.¹⁸ This gives rise to fetishism: ‘the social relation of the producers to the sum total of labour’ is reflected as ‘a social relation between objects, a relation which exists apart from and outside the producers’ (Marx 1990, 165). Fetishism, however, does not cover the second point: a private producer is manifested as one element of the labour of society, not only because he is involved in the exchange between different kinds of products but also to the extent that his products which are available for exchange represent the standard level of producing that kind product. From the perspective of the average level of social production, ‘the individual commodity counts here only as a sample of its kind’ (Marx 1990, 129-130). Consequently, given a commodity two statements are made from different aspects. On the one hand, in actual productive practices the time taken to produce commodities will be different depending on the ability of the workers and the productivity of

¹⁸ Marx (1990, 165) says: ‘Since the producers do not come into social contact until they exchange the products of their labour, the specific social characteristics of their private individual manifests itself as an element of the total labour of society only through the relations which the act of exchange establishes between the products, and through their mediation between the producers.’

individual capitals. Accordingly, a commodity is the result of an expenditure of the labour time actually used to produce it. On the other hand, because the average level of social production is represented by the productive situation of commodities, one product in exchange is considered as a sample of the kind of product it belongs to. Marx emphasises the latter in his analysis of competition, even if the actual time taken to produce a commodity is less or more than the socially average time it is still an embodiment of value (See Chapter 2). The importance of value and social average level in his theory is related to the extension of exchange. The value of a commodity is not determined by exchange but by socially necessary labour time. However, the importance of value in social study presupposes a *historical context* in which exchange prevails. This leads us to the third point. For those who produce the same kind of commodity market exchange creates a condition for them to know other producers' productive situation and the typical level of production. The latter two are important because the amount of profit one individual could gain does not depend just on his productivity, but also on his position in a branch of production (See Chapter 2). The more deeply an individual producer is involved in an exchange the more likely he recognises this. This provides the condition for competition. The competition between individual producers narrows the gap between their productive situations. Therefore, the time spent by an individual to produce his commodities is more and more close to the socially necessary

labour time. Therefore Marx states, ‘what competition brings about, first of all in one sphere, is the establishment of a uniform market value...out of the various individual values of commodities’ (1991, 281).¹⁹

The prevalence of market exchange and commodity production also provides Marx with a viewpoint to conceptualise production. The function of this viewpoint is demonstrated in the establishment of directed equations of values. To argue this I will first clarify the meaning of ‘value’.

In the first edition of *Capital*, Marx states that the substance of value is abstract labour and the magnitude of value is socially necessary labour time.²⁰ According to John Weeks, abstract labour results from capitalist production.²¹ Firstly, it requires that the outcomes of different kinds of labour, for instance product A, are commodities.²² Secondly, abstract

¹⁹ See also Marx’s statement: ‘The different individual values must be equalized to give a single social value, the market value presented above, and this requires competition among producers of the same type of commodity, as well as the presence of a market on which they all offer their commodities’ (1991, 281).

²⁰ Marx states, ‘Now we know the substance of value. It is labour. We know the measure of its magnitude. It is labour-time. The form, which stamps value as exchange-value, remains to be analysed’ (1990, 131). ‘This passage’, as demonstrated by the translator in a footnote, ‘occurs only in the first edition’ (1990, 131).

²¹ See Weeks (1990, 6-11) and (2011, 13-20).

²² Weeks states, ‘Exchange value guided the analysis to the dual nature of commodities, which itself immediately implies a further concept, abstract labor. As use values, commodities are non-comparable, possessing different objective characteristics. When they exchange, they are comparable (and compared), in a

labour presupposes the purchase of means of production.²³ In addition, the exchange between labour power and variable capital is presupposed by abstract labour; that is, labour power is kind of commodity.²⁴ Finally, Weeks (2011, 20) states that socially necessary labour time is a standard created under capitalist relations of production, in that the competition between capitalists ‘presents all producers with a norm for the minimum necessary input of concrete labour time’. This understanding of abstract labour is compatible with the circumstance that a produced commodity is an embodiment of a quantity of labour time. As a consequence, value presupposes a common property of different kinds of produced commodities: being the product of human labour. This common property is not only a necessary condition for the magnitude of value but also a precondition for the investigation of socially necessary labour time. In addition, being the product of labour explains an ability of

process that abstracts from their differences, from their use values. When considered as exchangeable articles, the commodities represent abstract labor as well as useful labor. As this point in the analysis, “abstract labor” is a definitional concept, being the type of labor which commodities have in common as a result of exchange: when commodities exchange they are equivalent by definition and represent the same quantity of abstract labor’ (Weeks 2011, 13).

²³ To quote Weeks, ‘Because the means of production are not exchanged, the producer faces no direct necessity to expend any specific amount of labor time on them’ (Weeks 2011, 15).

²⁴ Weeks states, ‘Once the means of production assume money form, the indeterminacy is reduced. Exchange becomes increasingly ruled by the “law of monetary costs and subsistence”. If the current input of labor is not monetized, value does not determine exchange value, except as an externally, idealistically imposed benchmark; it would be an anachronism to apply the value category. When under capitalist relations of production labor power becomes a commodity, value assumes full application and indeterminacy of exchange disappears. At this point, exchange is ruled by the law of value, a law that has two clauses. These two aspects are the “law of socially necessary labor time” and the “law of the tendency of the rate of profit to equalize”’ (Weeks 2011, 20).

products, namely being capable of being equated with other products. This is the foundation of the form of value which implies that if an amount of produced commodity A embodies the same value as an amount of produced commodity B, then an equation could be established based on their values.

Let us now turn to the form of value. I think the form of value is an equation having direction.

Firstly, it is an equation based on the value of produced commodities. It is therefore a value equation: ' x Commodity A = y Commodity B'. In addition, the form of value implies an exchange between commodity A and commodity B. It is a conceptualisation of value relationships between exchanged commodities on the viewpoint of exchange actions. As a consequence both value and exchange are presupposed. If ' x Commodity A = y Commodity B' is a form of value, it is then initially concluded that an exchange happens between product A and product B, and secondly that the value embodied in x amount of A is equal with the value of y amount of B.

A form of value is directed. The direction implied in a value form arises from the exchange actions of dealers. One value form consists of two poles: the relative form, the value of which is expressed, and the equivalent form of value, a material body expressing value (Marx 1990,

139). Take '20 yards of linen = 1 coat', for instance. In this equation the value of 20 yards of linen is expressed by one coat. Therefore 20 yards of linen is a relative form of its value, and one coat is the equivalent of the value of 20 yards of linen. The meaning of this equation changes if it is converted to '1 coat = 20 yards of linen' because in terms of this equation the value of one coat is expressed by 20 yards of linen. Marx's statement, I think, is based on the direction embedded in exchange actions. As Harvey states, 'all Marx really wants to show here is that the act of exchange always has a dual character - the poles of relative and equivalent form' (2010, 31). The exchange relationship between 20 yards of linen and one coat presupposes that they are owned by different persons and that their owners' needs are not satisfied by possessing them. As a consequence, owners exchange goods with each other. The owner of 20 yards of linen exchanges it for a coat. His action is asymmetric because his exchange of linen for a coat is not the same as his exchange of a coat for linen. The establishment of '20 yards of linen = 1 coat' is on the standpoint of the owner of linen, and so the meaning of this equation is based on the direction implied in his action. The action direction of a coat owner is opposite to that of the linen owner. '1 coat = 20 yards of linen' is an abstraction of the action of a coat owner and thus has a different meaning. Because of this, Marx (1990, 140) says, 'the same commodity cannot therefore simultaneously appear in both

forms in the same expression of value. These forms rather exclude each other as polar opposites’.

I will further clarify my definition of the form of value by comparing it with I. I. Rubin’s theory. In *Essays on Marx’s Theory of Value*, Rubin defines the ‘form of value’ as ‘value’s being a form’. To be specific, value is a material expression of the working relation among people and social (abstract) labour.²⁵ In terms of Rubin, this concept of value is therefore a linkage between labour and the exchange value. Firstly, value is a form of abstract labour because labour is its substance. Secondly, value as an expression presupposes the prevalence of commodity economy. My definition of value and that of the form of value is different from Rubin’s definition. For one thing, value, a property of being an embodiment of socially necessary labour time, presupposes labour. It does not presuppose the prevalence of commodity production. Also, the form of value is not value’s being form but is instead a directed equation based on value. These differences result from my question about the reasons for Rubin’s position. In Rubin, the definition of the form of value relies on a genetic (dialectic) method. This method consists of two-sided approaches: from form to content, and from content to form. Concepts are defined in terms of the application of this method. Given

²⁵ To quote Rubin, ‘Marx studied above all the “form of value,” i.e. , value as the material expression of the working relations among people and social (abstract) labor’ (2010, 113).

these two-sided approaches the definitions of concepts are so-and-so in order to apply this method.²⁶ To be specific, firstly, by proceeding from the exchange value Marx reveals that labour is the content (or substance) contained in value. The second step is to shift from labour to the exchange value. This approach is hindered if 'value' stands for only labour. To quote Rubin,

When value was treated simply as labour and was not given distinct social characteristics, value was equated with labour on one hand, and was separated from exchange value by bypass on the other hand. From this concept of value they could not move to the concept of exchange value. Now, when consider value in terms of content and form, we relate value with the concept which precedes it, abstract labor (and in the analysis with the material process of production), the content. On the other hand, through the form of value we have already connected value with the concept which follows it, exchange value. (Rubin 2010, 122)

²⁶ As Rubin states, firstly, 'This *genetic* (or dialectical) method which contains analysis and synthesis was contrasted by Marx with the one-sided *analytical* method of the Classical Economists. The uniqueness of Marx's analytical method does not consist only of its historical, but also of its sociological character, of the intense attention which it paid to social forms of economy. Starting with the social forms as given, the Classical Economists tried to reduce complex forms to simpler forms by means of analysis in order finally to discover their *material-technical basis or content*. However, Marx, starting from a given condition of the material process of production, from a given level of productive forces, tried to explain the origin and character of *social forms* which are assumed by the material process of production' (2010, 43). Secondly, 'we can say that value has to be considered in terms of "substance" (content) and "form of value." The obligation to analyze value in terms of both of the factors included within it means an obligation to keep to a genetic (dialectic) method in the analysis. This method contains analysis as well as synthesis. On one hand, Marx takes as his starting-point the analysis of value as the finished form of the product of labor, and by means of analysis he uncovers the content (substance) which is contained in the given form, i.e., labor ... But on the other hand ... Marx wants to show why this content acquires a given social form' (Rubin 2010, 112-113).

Therefore, the concept of value ought to be a linkage between labour and exchange. To realise this target, value is considered as a combination of two aspects: the one relates to labour, the other concerns exchange. My question about this argument initially concerns my previous articulation. Firstly, Rubin agrees with the standpoint that the transition from exchange value to value presupposes the law of value:

Thus Marx starts from the fact of manifold equalization of all commodities with each other, or from the fact that every commodity can be equated with many other commodities. However, this premise in itself is still not enough for all the conclusions, which Marx reached. At the basis of these conclusions there is still a tacit assumption, which Marx formulates in various other places. (Rubin 2010, 110)

Another premise consists of the following: we assume that the exchange of one quarter of wheat for any other commodity is subsumed by some regularity. The regularity of these acts of exchange is due to their dependence on process of production ... we affirm that all the possibilities for the exchange of a given commodity for any other commodity are subsumed under certain regularities based on the production process. (Rubin 2010, 110)

As I argued at the beginning of this section, the regularity mentioned by Rubin is verified gradually with the unfolding of *Capital*. It is a conclusion. It cannot be an assumption based on which the concepts of value are confirmed. Therefore the transition from exchange value to value does not constitute one side of the application of the genetic method. Instead, the statements resulting from the application of this method support this transition.

Furthermore, I think the two-sided method is not taken for granted. According to Rubin the plausibility of this method implies a concept transition: from ‘exchange value’ to ‘abstract labour’, and from ‘abstract labour’ to ‘exchange value’. Therefore concepts are defined with respect to the completion of this transition. I think that this method, like the law of value, is constructed and displayed with the development of *Capital*. Secondly, the conceptual transition is supported by revealing the operation of social processes. For instance, capitalists sell their commodities in a market, and the exchange value of a commodity is regulated by its value. As a result, the conceptual transition is not an a priori context in terms of which concepts are defined. Hence, the definition of value is not provided to achieve this transition.

Similar to Rubin’s definition, however, my definition of the form of value presupposes exchange and labour. In addition, I argue that capitalism provides the conditions to construct the form of value. Firstly, being a form of value, ‘ x commodity A = y commodity B’ is an equation between two produced commodities, A and B. The magnitude aspects of this equation, x and y , are determined by the socially necessary labour time of producing A and B. Secondly, the construction of this equation presupposes that produced commodities are bearers of value. As I previously argued, this presupposes that the manufacture of products

used for exchange represents the standard level of producing this kind of product in a society.

The prevalence of commodity production is the condition of capturing social production in this way. Because capitalism implies the prevalence of commodity production the condition is satisfied. Finally, exchange between A and B is presupposed by the establishment of this equation. A form of value is a *directed* equation, in that the exchange action is the viewpoint based on which the equation is constructed.

1.3 Commodity, Money and Capital

Following the previous section, the following section will clarify the function of commodity exchange further. The conceptual function of commodity exchange is to construct the concepts of money and of capital. The transition from ‘commodity’ to ‘capital’ is comprehended in this way. On the contrary, in terms of a Hegelian interpretation this transition is attributed to a contradiction which is internal to a commodity. Therefore I will argue my position by criticising a Hegelian interpretation of Marx’s *Capital*.

1.3.1 The Hegelian Interpretation of Marx’s Theory

In a letter to Kugelmann, March 6, 1868, Marx wrote, ‘My method of exposition is *not* Hegelian, since I am a materialist, and Hegel an idealist’ (Marx 1868). Both Hegel and Marx

agree that reality is structured and developmental. Therefore a conceptual scheme should capture these two features. Firstly it displays reality as an ordered structure, and secondly it indicates the tendency combined in reality. However, the difference between them is more important than their shared features. As Allen Wood states, an idealistic metaphysics characterises Hegel's philosophy: 'Hegel believes that the absolute reality is self-positing spirit. The marks of thought and its creative self-expression are organic interconnection and development' (2004, 216). Because of this, the 'key to the structure of reality is not causal sense observations but the necessary movement of thought which philosophers can produce out of their own minds' (Wood 2004, 216). Marx, however, keeps in mind that concepts concern aspects of a society but not thought. Firstly, he states that 'the dialectical structure of the world is a complex empirical fact about the nature of material reality' (Wood 2004, 217). Consequently, the concepts capturing social structures do not arise from speculation but from social study. In a letter to Pavel Vasilyevich Annenkov, December 28, 1846, Marx wrote:

Men also produce the *social relations* in which they produce worsted and linens ... those who produce social relations in conformity with their material productivity also produce the *ideas, categories*, i.e. the ideal abstract expressions of those same social relations. Indeed, the categories are no more eternal than the relations they express. (Marx 1846)

This materialistic standpoint, however, brings Marx to a theoretical issue: from where does path from one concept to another come? In Hegel, the necessary movement of thought can be produced out of philosophers' minds. A philosopher, as a subject, has the capability to reason the necessity implied in the path taken by the spirit. Hegel's logic demonstrates the realisation of this capability.²⁷ The possibility of his philosophy is confirmed by the result of his argument. This, however, is not available to Marx. He cannot attribute the unfolding of his argument only to the contradictions and the implications between categories; otherwise, he would be an idealist. Therefore a link ought to be built between categories and the external world, and the transition from one concept to another ought to be attributed to some force which is identified as internal to this world. A Hegelian interpretation connects categories with the properties of commodities, meaning: use-value and exchange value. The transition from one category to another is ascribed to the conflict between these two properties. It is applied in understanding the transition from 'commodity' to 'capital'. This reading of Marx is advanced by Roman Rosdolsky, and is then popularised by Christopher J. Arthur.

²⁷ As Wood states, 'Although there is much in the contingent, transitory world of existence and appearance that is not as it ought to be, nevertheless the inner essence of things, viewed by speculative reason in its necessity, is inevitably seen to be fully rational and hence spiritually satisfying. Because of this there can be a genuine "science" of speculative logic which deals entirely with the "thought determinations" that constitute the conceptual essence of the world and display themselves in external reality' (1990, 9).

Rosdolsky states that expression of the value of a commodity requires its exchange with other commodities.²⁸ As a value, a commodity has the potential to exchange with all other commodities. This is because as value every commodity is an expenditure of labour time; they are in this respect different quantitatively but not qualitatively. The use-values of commodities, however, affect commodity-exchange. With respect to use-values, the direct exchange between commodity *A* and commodity *B* happens only if two conditions are satisfied: firstly, that *A* has no direct use-value to its owner, but has use-value to the owner of *B*; and secondly that the owner of *A* demands commodity *B* but the owner of *B* does not. Therefore the commodities' possession of use-value constrains the realisation of its value. Marx's statements in *Grundrisse* affirm this interpretation,

As a value, the commodity is general; as a real commodity it is particular. As a value it is always exchangeable; in real exchange it is exchangeable only if it fulfils particular conditions. As a value, the measure of its exchangeability is determined by itself; exchange value expresses precisely the relation in which it replaces other commodities; in real exchange it is exchangeable only in quantities which are linked with its natural properties and which correspond to the needs of the participants in exchange. (Marx 1993, 141-142)

²⁸ This statement, as well as the following articulation is based on Rosdolsky's theory in *the Making of Marx's 'Capital'*. See Rosdolsky 1980, 109-123.

The emergence of money transfers this contradiction between use-value and value. Money exists independently of value. In exchange, the natural properties of money do not satisfy dealers' needs, therefore it does not have use-value in exchange like other commodities. The only usefulness of money is to exchange it with other commodities, thus expressing the value of commodities.

It is problematic to ascribe the emergence of money to the conflict between value and use-value. The question is, is there a conflict between these two properties? It might be argued that with respect to use-value, commodities are qualitatively heterogeneous, while with respect to value they are qualitatively homogeneous. As a result, commodities are both different from and identical with each other.²⁹ This argument of contradiction is not valid however. The previous statements mean that a commodity possesses several properties. Some of its properties indicate its sameness with others and thus facilitate its classification. Some properties, however, characterise this commodity's particularities. For instance, there are

²⁹ See John Rosenthal's statement, 'The requirements of commodity exchange are such that the elements of the social product must be qualitatively heterogeneous, since otherwise there would be no reason for their exchange, and they should possess the form of being qualitatively homogeneous since only in this way are they quantitatively commensurable and hence exchangeable in just those proportions which "the law of value" demands. Precisely in conformity with the principle of non-contradiction, however, an item of a given sort cannot within a common genus be both specifically different from items of other sorts and of the same sort as them' (1998, 175).

human beings and foxes, both of which are mammals. Notwithstanding this, they are different in that human beings are rational. In addition, the contradictions between use-value and value might be interpreted by referring to a commodity, because having value is exchangeable with all other commodities in a market. However, the realisation of this capability is hindered by its use-value. I do not think this articulation proves the contradiction between use-value and value. Supposing the value of a commodity contributes to its exchangeability, this articulation argues that its use-value relates to the condition of realising its ability. Being the bearer of value, a commodity is exchangeable with all other commodities. As a result the occurrence of exchange demonstrates the realisation of this capability. This creates a question: how does an exchange happen? According to Marx's theory, a person, for instance Jack, exchanges his commodity directly with another person if the latter not only possesses the commodity that Jack wants but also demands the commodity owned by Jack. As a consequence there are two states: either the exchange happens or not. If the exchange happens, it is concluded that the capability ascribed to the value is realised. The conditions required by this realisation are satisfied. Otherwise the exchange does not happen, and the realisation of this capability fails. Therefore, it is not argued that use-value obstructs exchange. Instead, the condition of the occurrence of exchange depends on the relationship of use-values with the agents' desires. Thirdly, value and use-value in themselves are not at odds with each other: value is a

property enabling exchange, while use-value is a property which satisfies the needs of human beings. The conflict between them only emerges when the bearer of them, a commodity, is involved in a practical context: exchange. In the further analysis I will clarify that the tension in the direct commodity exchange does not result from the contradiction which is internal to a commodity. Instead, it is because initially an agent situates himself in a social relation with others: exchange. Secondly, if a commodity is directly exchanged with another, then the realising of an agent's purpose of gaining other use-value is restricted by the other agents' demands. Marx (1990, 178-180) articulates this in *Capital*. Correspondingly, I will provide an interpretation of the transition from 'commodity' to 'capital' by focusing on the mode of exchange action. A Hegelian interpretation of *Capital* is radicalised by Arthur. In Volume One of *Capital*, Marx proceeds from commodity and then introduces money and capital. Arthur interprets the transition from 'commodity' to 'capital' by establishing its correspondence with Hegel's logic: 'commodity – money – capital' matches with 'affirmation – negation – negation of negation'.³⁰ In terms of Arthur's interpretation, Marx describes the dialectic of the form of value, a process through which the value form is

³⁰ The 'New Dialectic' is opposite to the 'Old Dialectic'. The latter is 'the Soviet school of "Diamat", rooted in a vulgarised version of Engels and Plekhanov' (Arthur 2004, 3). It is a dialectic of history. Contrary to this, 'New Dialectic' is a systematic dialectic. Its main claim is that 'what Marx learned from Hegel's logic was a way of ordering the argument of *Capital* which allowed him to present a vision of capitalism as a *self-sustaining system*' (Kincaid 2005, 27). See also Arthur 2004, 1-4; Alex Callinicos 2004, 43.

self-grounded. Value frees itself from the contingency which is internal to commodity circulation and finally acquires a permanent body by materialising in production.

Value, in itself, exists as a general property underlying different commodities.³¹

‘Commodity’ covers the general property of being a commodity. This property is exemplified in exchange. The occurrence of exchange presupposes the exchangeability of commodities.

This ability, according to Arthur, is attributed to the different use-value of diverse goods. To

quote Arthur: ‘There is no conceivable point in exchanging effectively the same good ... thus

a condition of the existence of exchange is the universe of use-value’ (2004, 90). This

exchangeability, however, is insufficient for the instantiation of the commodity because it

covers only qualitative aspects involved in exchange, not quantitative ones. Therefore Arthur

turns from qualitative aspects of commodities to quantitative aspects of them. Every kind of

commodity, such as iron, linen, or cups, is measurable in a quantitative way, for instance a

ton of iron. However, the materialisation of the general property – being a commodity –

requires a common index. If different kinds of goods have their own measurement units, a

common index which is required by exchange cannot count on these units. Consequently,

³¹ As Arthur (2004, 95) states, ‘If exchanged commodities are identified as substitutable for each other while yet different use-values, this requires a ground for its meaningfulness. If such an underlying value exists when we can speak of the commodities themselves as “value” as if value were a thing, a material that assumed the shape now of corn and now of iron indifferently’.

quantum is needed. A ‘unit of exchange does not appear as a unit of anything ...; it is a pure number, or rather a ratio of such number’ (Arthur 2004, 90). This pure number is named after a ‘value’. This concept of value, as Arthur demonstrates, is irrelevant to the labour theory of value. According to Arthur, value is ‘a sort of homogeneous “matter” underlying diverse bodily shapes of commodities’, while ‘labour is not common to everything in commodity-form’ (2004, 94-95).

The next step is to introduce money. This step corresponds to the negation moment in Hegel’s dialectic. The introduction of money relies on the contradiction between value form and exchange. Value struggles to be a self-governed commodity exchange. However, it cannot be the foundation for realising this purpose. Commodity exchange is essentially contingent. Every exchange ends up with the achievement of the desired use-value. As a result, if value form relies on the exchange, it then disappears with the end of the commodity circulation. To be self-grounded, value form has to be separate from commodity exchange. It needs to apply to a material. This material, by being the incarnation of value form, is no more than the expression of value. This kind of material is money. As Arthur (2004, 99) states, ‘As commodity, value seems to “inhere” so to speak in a use-value as a quasi-property of it. But,

as money the inverse is true: value is itself a substance of which the particular use-value (e.g. gold) is merely a transubstantiated outer shell.’

With respect to Hegel’s dialectic, the moment following negation is a negation of negation.

Similarly, Arthur considers the emergence of capital as the third stage in the dialectic of value form. In this stage, money (M) and commodity (C) are unified. Arthur states that there are two ways to unify them: one is ‘C – M – C’, and the other is ‘M – C – M’. The latter is the form of capital, as ‘value is more adequately grounded in M – C – M than it is in C – M – C’ (Arthur 2005, 206). ‘C – M – C’ has no necessity because it is conducted by persons’ needs, which will be satisfied by consumption. Therefore the retirement of money is accompanied with the termination of commodity circulation, as a commodity circuit ends if one person achieves what they want. Contrary to this, ‘M – C – M’ starts and ends up with money. According to this form, ‘Value is now immanent in the activity of exchange; it is itself the object, not the effect and medium of other motives. With the form of capital, value becomes its own end rather than mediator of other relations; that is to say that with capital we have before us an individual “subject”’ (Arthur 2004, 102).

Value form finally overcomes the contingency which is internal to exchange by materialising in production. This is realised by the application of the capital form to commodity production. Production functions only in the service of the self-sustaining of value form. As Arthur (2004, 104) states, exchange is essentially contingent because the primacy condition of it is the world of use-values. To overcome this contingency, 'M – C – M' cannot be restricted to exchange. The form of capital thus takes charge of the production of commodities; 'value must be produced by value' (Arthur 2004, 104). The importance of labour is due to its being the constituent of value production. Therefore, in terms of Arthur, the labour theory of value does not mean that value is created by labour. Instead, labour is involved in the materialisation of the value form in production, and it is therefore one of the elements by which value exists for itself.³²

Arthur's interpretation of capital turns it into a philosophical narrative of society and of history, and it cannot be posited as a scientific explanation. His strategy demonstrates conceptual coherence and necessity in the framework of categories. By reference to this framework and some presuppositions, the occurrences posited by a theory are shown to be

³² Arthur (2005, 211) states, 'It is hard to know what "self-valorisation" can mean other than that value as capital creates surplus-value, which flatly contradicts the thesis that labour creates value. I agree that living labour is the source of new value. But "source" and "creator" are two different things. To be the source of new value is to be that out of which capital creates value.'

connected. [Correspondingly, we make sense of a society and of history. However, Arthur's theory is not an explanation because it does not answer the 'why' question, and secondly it is insufficient to evaluate explanations.

Arthur states that the conceptual necessity in 'commodity – money – capital' is backwards: 'commodity' is verified by 'money', which is verified by 'capital'.³³ This is because the antecedent categories constitute the subsequent one: for instance, 'capital', a form of 'M – C – M', consists of 'money' and 'commodity'. In this way, Arthur argues that there is a necessity between categories, and this necessity is retrospectively argued. Although Arthur has established this necessity, the question of why we have to progress from "commodity" to "capital" remains unanswered.

According to Arthur, the transition of categories captures the development of social form.

Categories are abstractions of the social form implied in practices. Take 'commodity' for

³³ Arthur states the systematic dialectic organises a system of categories in a sequence. The systematic ordering of categories may be understood both 'forwards', as a progression, and 'backwards', as a retrogression (Arthur 2004, 65). The feature of this system is that the end of this sequence is not justified by the beginning, but justifies the beginning. To quote Arthur, 'If the beginning cannot justify the end, is it not also the case that the end cannot justify the beginning? The answer is that there is indeed an asymmetry here. The end, as the most concrete, complex, and complete reality, does adequately support and sustain all the elements that make it up, and thereby retrogressively justifies the logical sequencing from this viewpoint' (Arthur 2004, 65).

instance; Arthur states that ‘the forms we are concerned with are not pure thoughts but borne by matter, namely commodities. As a consequence, the unity in the form of these commodities must be more than thought, it must be actually posited’ (Arthur 2004, 99). Therefore, secondly, the necessity of moving from ‘commodity’ to ‘capital’ is not understood until capital, as a form of practice, is present in a society. Because of this, Arthur denies that his systematic dialectic needs a complement of theology. ‘Capital’, the concept in the end of the category sequence, is not based on a target set at the beginning of the argument. Instead, capital is ‘already there’.³⁴

If the transition from one concept to another reflects the development of the social form implied in practices, it then leaves two questions. Firstly, why does the development of social forms happen, and secondly, how is a social form applied in practice? Arthur’s response to the first question is more philosophical than scientific. His articulation is platonic; it is based on a dichotomy between an ideal property and the matter on which this property is imposed: value form and society.³⁵ Proceeding from this opposition, the transformation from commodity to capital is a process in which an ideal value shapes and re-shapes society.

³⁴ Arthur states: ‘It is puzzling that Callinicos talks of a teleological guarantee. Systematic dialectics does not need this; just because capital is already there’ (2005, 193).

³⁵ In Arthur’s discussion of the relationship between the form of capital and labour power he states that , ‘Because of the inversion which brings about an interpenetration of the material with the ideal, there are two sets

Arthur states that value is a general property, and it exists in itself. However, the concept of value is an abstraction of commodity exchange. 'To speak of a commodity as a thing of value, or simply "a value", and of things related to one another as value, implies the existence of value in itself or a sort of homogenous "matter" underlying the diverse shapes of commodities' (Arthur 2004, 95).³⁶ The conclusion that value form is necessarily self-grounded is derived from this ontological description. As Arthur (2005, 191) states, value form is a result of the practical activity of exchange, and therefore it requires a material bearer in the shape of boots at all times. Consequently, the materialisation of value form is inevitable in a social world.

Commodity, money and capital are stages of the materialisation of value form. According to Arthur, the dynamic internal to this process is the collision between form and material: value form overcomes the resistance and chaos stemming from the material. Material is inevitably involved in the value form's self-grounding process, as it brings the others of capital and thus affects this whole process. For instance, capital, a developed form of value, is self-sustained

of ontological determinations *in opposition*. It is in this context that the capital relationship must be situated, inasmuch as capital posits itself in subsuming living labour within it' (Arthur 2005, 210-211).

³⁶ This statement implies an approval of a naive meaning referential theory: a term, if it is meaningful, must refer to a universal.

by dominating production. The others brought by production are natural resources and labour powers which inspire a contradiction with capital form. 'Materially, living labour and natural fertility of social remain outside it (capital) as resources capital cannot itself produce'; hence, 'No matter how all-pervasive the forms of capital become, it cannot celebrate the end of history; the dialectic remains open-ended' (Arthur 2005, 196-197). Historical transformation is therefore interpreted as the revolt of material against form and the enforcement of form on material.

This statement does not explain transformation. Firstly, Arthur does not answer the question why does value form have to be self-grounded? His theory claims only that value form is necessary to do this. Secondly, Arthur does not figure out the cause of the transformation of the social forms. The requirement to overcome the resistance in material is too abstract to identify particular causes.

Considering the application of social forms in practice, Arthur admits that this application depends on forms being internalised by consciousness. Take the form of capital, for instance. He states,

Key is that people found the form of capital already structurally determinant of their everyday opportunities. The capitalist have a material interest in profit, and competition selects those who identify most strongly with the spirit of capitalism. Hence, they are forced to translate ideal demands (valorisation) into appropriate practical measures (close supervision, design of assembly lines, creation of new needs, and so on). (Arthur 2005, 202)

The problem left here is to establish how the ideal value form restrains opportunities in everyday life. If everyday life stands for material society, Arthur's idea presupposes that prior to being internalised by consciousness the capital form has already impacted the material world. In other words, it has been applied. Arthur could argue that there is no need for him to explain the application of the capital form in a society, as the capital form is a content combining the value form and material, and it is therefore presupposed to be applied. This argument, however, will lead us to the question: 'how are value forms applied in society?' He might state that the form which constrains opportunities is not capital but money. This strategy would give rise to a regress. As by querying the application of money, the impact of the value form on a society is still at issue.

Additionally, Arthur's theory cannot distinguish a scientific from other explanations.

Retrospective proof cannot do this; it only demonstrates that there is a certain necessity which is internal to a conceptual scheme. To argue this, let us first consider an example of

retrospective proof. This example is provided by Tom Rockmore in *Before and After Hegel*.

He states,

As an example, let us consider any theory, even a very simple one, such as the hypothesis that there is a possibility of the rain when we see black clouds. Such a hypothesis has no foundation, or assured beginning point ... It is, hence, not possible to deduce the consequence that it will rain each time that we see black clouds. Yet if, in our experience, when it rains there are clouds and they are black, then we can say that the hypothesis which is our beginning point is legitimated or justified. (Rockmore 1993, 162)

In terms of this proof, the former statement, ‘when we see black clouds it is possible that it will rain’, is confirmed by the latter statement, ‘it is raining’. The order and necessity between them is not established by deducing the latter from the former. The necessity between them, however, does not inform the explanation of rain. It is open to both kinds of accounts: the rain results from the dance performed in the ceremony, or the cause of the rain is moisture moving along three-dimensional zones of temperature and moisture contrasts. The necessity between the statements cannot make out which one is scientific. Similarly, Arthur is confronted with a problem: the justification of the conceptual necessity between ‘commodity’, ‘money’ and ‘capital’ does not shed light on explaining the transformation in history.

1.3.2 The Unfolding of the Argument from an Isolated Form of Value to Money

‘If the move from one determination to another does not take the form of a conceptual derivation ... what is it?’ (Callinicos 2005, 57). In Marx’s introduction of new concepts the

conceptual necessity is retrospectively proven. However, initially the minimum elements in his argument are not categories but are instead an abstract model of exchange actions.

Secondly, the unfolding of the argument is not driven by establishing necessity. Now let us first consider Marx's introduction of 'money'.

Marx demonstrates that money is a general expression of value. It is the universal equivalent form of all other commodities. Money is introduced by transitioning from an isolated form of value to an expanded form of value and then to a general form of value. The last movement establishes the formation of a universal equivalent form of value. Gold, which is taken as the bearer of this form is money.

In terms of a Hegelian interpretation, there is a contradiction between value and use-value. I would like to consider the 'contradiction' by virtue of their relationships with exchange actions. This concept is implied in Marx's statement that exchange action is both general and individual,

The owner of a commodity is prepared to part with it only in return for other commodities whose use-value satisfies his own need. So far, exchange is merely an individual process for him. On the other hand, he desires to realise his commodity, as value, in any other suitable commodities of the same value. It does not matter to him whether his own commodity has any use-value for the owner of the other commodities

or not. From this point of view, exchange is for him a general social process. (Marx 1990, 180)

One person who brings his commodities to a market does not care whether his commodity is in demand by others, but only wants to gain the commodities wanted by him. Because this applies to every trader in this market, it is argued that an exchange of one commodity with others depends not only on its owner's desire but also on other owners' demands. Being proven to have use-value to people is required for the exchange (Marx 1990, 179). Because a commodity's value is expressed by another commodity in an exchange with other commodities, it is then argued that the expression of the value of one commodity depends on the relationship of its use-value with the other person's desires. The expression of the value of a commodity, such as *A*, is mutually restricted in a direct commodity exchange: firstly, *A* has to be in demand by another person who possesses another commodity, such as *B*, and secondly, Commodity *B* has to be able to satisfy the needs of the owner of *A*. Central to this argument is not the conflict between value and use-value, instead it is the restraint??? arising from the direct commodity exchange. An owner wishes the value of his commodity to be expressed by anything he wants. The expression of value depends on other person's demands in actual exchange.

The emergence of money releases this tension in exchange , as it frees exchange from mutual restriction. If a person has money then he can purchase anything he wants, regardless of the ‘use-value’ of the money commodity. Exchange still involves two persons; however, its occurrence is dependent only on the buyers’ needs. The distinction between money and commodities brings a difference to the expression of value. The expression of one commodity’s value relies only on its own use-value, but not on other commodities’ use-values.

Next, I hope to provide an analysis of Marx’s transition of concepts. This analysis underlines the model of exchange actions.

The isolated form of value is expressed as ‘ x commodity $A = y$ commodity B ’. This form, on the one hand, corresponds to the early stage in human history when exchanges rarely happened. This is expressed when Marx states that an isolated form of value ‘appears in practice only in the early stages, when the products of labour are converted into commodities by accidental occasional exchange’ (1990, 158). On the other hand, however, ‘ x commodity $A = y$ commodity B ’ is isolated in the sense that exchange actions happen in isolation: an exchange happens between a number of dealers in a particular place at a particular time. It is

irrelevant to the frequency and scale of the exchange. I prefer the latter sense because it corresponds to Marx's statement that the isolated form of value is the form in which 'the whole mystery of the form of value lies hidden' (Marx 1990, 139).

The form, ' x commodity $A = y$ commodity B ', is firstly an abstraction of exchange actions.

Exchange actions happen in isolation, and this model is available to all exchange occasions.

Firstly, the exchange which is mediated by money is expressed by identifying one pole in the

equation as money: ' x commodity $A = y$ money'; or ' x money = y commodity B '. This is

supported by Marx's statement that money is a kind of commodity. Secondly, this model is

also not relevant to the frequency of commodity exchange, nor to the variety of commodities

involved in the exchange. These two aspects do not cause any difference to the form of

exchange. Thirdly, this is a form of value which is not only based on the value of

commodities but also presupposes the occurrence of the exchange. For instance, one person

exchanges linen with coats in a space S_1 at time T_1 . Given his action, a value form is

established between coats and linen. If the necessary labour time of 20 yards of linen is the

same as that of one coat, there is a form of value ' 20 yards of linen = 1 coat'.

Marx defines the expanded relative form of value as ' x commodity $A = y$ commodity B , or =

z commodity C '. The putting forward of this form is attributed to the situation that

commodity A exchanges with more than one type of commodity. A person exchanges linen with coats in a space S_1 at time T_1 . Based on the value of these commodities and his action, there is an isolated form of value '20 yards of linen = 1 coat'. Another person exchanges linen with tea in a space S_2 at time T_2 , and the form of value implied in his action is '20 yards of linen = 10 lb. of tea'. As a consequence, linen can be exchanged with more than one kind of commodity. The expanded form of value based on the actions of the linen's owners is '20 yards of linen = 1 coat, or = 10 lb. of tea'. Therefore, as Marx states, 'The expanded relative form of value is, however, nothing but the sum of the simple relative expression or equations of the first form, such as: 20 yards of linen = 1 coat; 20 yards of linen = 10 lb. of tea, etc.' (1990, 157). Conversely, by virtue of the actions of the owners of coat and of tea, linen is an equivalent form of the value of these commodities: 'The other owners of commodities exchange them for linen, and therefore express the value of the various commodities in one and the same third commodity' (Marx 1990, 157).

To summarise, linen is the equivalent form of value if we are on the viewpoint of the owners of other commodities such as coats and tea. In terms of the linen's owners and their actions, however, linen is the expanded relative form of value, the value of which is expressed by

other kinds of commodities. The former situation directs Marx to account for the universal equivalent form of value.

According to the universal equivalent form of value, commodities present their value ‘(1) in a simple form, because in a single commodity; (2) in a unified form, because in the same commodity *each time*’ (Marx 1990, 157; emphasis added). In other words, being a universal equivalent form of value, a kind of commodity cannot only be exchanged with all other kinds of commodities, it can also be employed on every exchange occasion. Let us firstly consider the first half of this proposition. The statement, ‘the bearer of the universal equivalent form of value exchanges with all other commodities’ is implied in Marx’s analysis of the expanded form of value. Marx states, ‘We must bear in mind that the development of the equivalent form is only the expression of and the result of the development of the relative form of value’ (1990, 160). If linen can be exchanged with coats and with tea on different occasions, then according to the actions of its owners linen is identified as an expanded relative form of value. Conversely, by reference to actions exchanging commodities for linen, linen is an equivalent form of these commodities. When linen goes further, being exchanged with all other commodities in the market, it is the general relative form of value on the viewpoint of the

actions of the linen's owners. Contrary to this, based on the actions of the owners of other commodities linen is the universal equivalent form of value of their commodities.

Exchanging with all other kinds of commodities is necessary but is not sufficient to make a kind of commodity the universal equivalent form of value. The bearer of the universal equivalent form of value has to be the expression of the value of other commodities on every exchange occasion. This conclusion is deduced from Marx's argument that in a market only one kind of commodity acts as the universal equivalent form of value. Marx states,

To the owner of a commodity, every commodity counts as the particular equivalent form of his own commodity. Hence, his own commodity is the universal equivalent for all the others. But since this applies to every owner, there is in fact no commodity acting as universal equivalent, and the commodities possess no general relative form of value under which they can be equated as values and have the magnitude of theory value compared. Therefore they definitely do not confront each as commodities, but as products or use-value only. (Marx 1990, 180)

To understand this paragraph, let us take an example. Supposing there are only three kinds of commodities: linen, coats, and tea, and each one is exchanged with the other two. There is a conclusion that each of them is the equivalent form of the value of the other two. Therefore;

- (1) There must be some exchange actions that are irrelevant to linen; they are between coats and tea.

- (2) There must be some exchange actions that are irrelevant to coats; they are between linen and tea.
- (3) There must be some exchange actions that are irrelevant to tea; they are between linen and coats.

None of them is a universal equivalent form of value because they must each be absent on a certain exchange occasion. The rejection of this situation implies that the universal equivalent form of value attaches to one kind of commodity in a market.³⁷

The emergence of a universal equivalent form changes the expression of the value of commodities. Firstly, commodities ‘are, for the first time, really brought into relation with each other as value, or permitted to appear to each other as exchange value’ (Marx 1990, 158). Marx argues that the commodity, which is the universal equivalent form of value, must be the bearer of the general relative form of value. As the general relative form of value, the value of this commodity is expressed by all other commodities. As a result all other commodities are its exchange values. As the universal equivalent form of value, this commodity expresses the value of all other commodities. Because of this the values of commodities are comparable, and their value is expressed by the same kinds of thing. Additionally, through the link with

³⁷ I say some because of considering the situation in which gold and silver act as exchange media. However, in this situation, one will be displaced from the exchange in practice. Therefore, to some extent, only one commodity acts as a universal equivalent form of value in practice.

the universal equivalent form two products confront each other as commodities, even though there is no direct exchange between them.

Secondly, as soon as one commodity becomes the universal equivalent form of value, its function in exchange is distanced from its use-value as physical object as such. As a result, exchange does not rely on the use-values of two commodities. If exchange relies entirely on use-value, then it is possible to apply the universal equivalent form of value to all kinds of commodity in the market. According to the previous argument, this gives rise to a situation where no commodity acts as the universal equivalent form of value. One way to avoid this situation is to argue that the commodity acting as the universal equivalent form of value does not satisfy the needs of the traders by its use-value.

We now situate Marx's introduction of 'money' into the transition from the isolated form of value to the general form of value. The subject matter of his articulation is the expression of the value of commodities. Two points are underlined here. Firstly, Marx's argument is unfolded by reference to exchange actions. For instance, the direction implied in an exchange action distinguishes the equivalent form of value from the relative form of value. Also, one commodity is becoming a universal equivalent form of value, first and foremost, because it is

involved in every exchange action, not because it can be exchanged with all other kinds of commodities. The former implies the latter, but not vice-versa. Secondly, Marx's argument is more like a formal discussion. An isolated form of value opens to an expanded form of value, as isolated exchanges between particular kinds of commodities are coherent with the situation that one kind of commodity can be exchanged with many other commodities on different exchange occasions. Therefore this kind of commodity is the expanded relative form of value, the value of which is expressed by many other commodities. The expanded relative form of value directs the discussion of the universal equivalent form of value. The former leads to the possibility that one kind of commodity exchange is employed on all exchange occasions. This kind of commodity is the general relative form of value, and thus the universal equivalent form of value. In terms of this interpretation, Marx does not ascribe the emergence of money to contradictory properties combined in commodities, meaning value and use-value.

1.3.3 The Formulation of Commodity Circulation ($C - M - C'$) and Capital ($M - C - M'$)

Previously, if an owner of commodity A wanted some products, for instance B , he would then have to find another person who possesses B and also requires his commodity A . His gain of B and giving up A happens through one procedure. The emergence of money cuts this

procedure into two: he sells his goods for money and then purchases B with money. As Marx states,

The process of exchanges is therefore accomplished through two metamorphoses of opposite yet mutually complementary character – the conversion of the commodity into money, and the re-conversion of the money into a commodity. The two moments of this metamorphosis are at once distinct transactions by the weaver – selling, or the exchange of the commodity for money, and buying, or the exchange of the money for a commodity – and the unity of the two acts: selling in order to buy. (Marx 1990, 200)

The meaning of sale and purchase is clarified by referring to a person's actions. The discussion between sale and purchase is not based on the viewpoint of the mutual-exchange between commodities and money, but on who holds money in this exchange. These two standpoints are combined in Marx's discussion:

The conversion of a commodity into money is the conversion of money into a commodity. This single process is two sided: from one pole, that of the commodity-owner, it is a sale, from the other pole, that of the money-owner, it is a purchase, in other words, a sale is a purchase, $C - M$ is also $M - C'$. (Marx 1990, 203)

Based on the mutual-exchange between commodities and money, a procedure is both a sale and a purchase: a commodity's sale for money must also be its being purchased through money. By reference to different persons involved in the exchange, sale and purchase are

distinguished: the person who holds money buys commodities and the owner of commodities sells the commodities.

The separation between sale ($C - M$) and purchase ($M - C$) allows the discussion of new possibilities: $C-M-C'$, and $M-C-M'$. The former represents that one person sells his commodity for an amount of money, and then uses this money to purchase a new kind of commodity. The latter means that an agent purchases a commodity and then sells it at a higher price. The discussion about possibilities is completed in that the permutation and combination of these two forms – $C-M$ and $M-C$ is exhausted by $C-M-C$ and $M-C-M$. Additionally, the intelligibility of actions implies the difference between C' and C and between M and M' . The former conducts Marx's discussion of commodity circulation and the latter the discussion of capital. In terms of this interpretation, one notion in *Capital* is comprehensive: alongside the form of commodity circulation ($C - M - C'$), there is the form of capital ($M - C - M'$) (Marx 1990, 247-248). In this section, I will articulate the form of commodity circulation.

C-M-C' is a circuit of commodity circulation.³⁸ It is a unit consisting of two moments: C – M and M – C'. These two moments are internally related. By reference to one person who wants to get a commodity, C – M and M – C' are the two steps that are required to realise this purpose: a person purchases one commodity by selling his own goods. Therefore they complement each other. However, they are also externally independent. Sale and purchase are different kinds of actions, which happen in different places at different times. As a result, Marx states, 'To say that these mutually independent and antithetical process form an internal unity is to say also that their internal unity moves forward through external antitheses' (1990, 209).

Exchange mediated by money 'bursts through all the temporal, spatial and personal barriers imposed by the direct exchange of products' (Marx 1990, 209). This is because C-M-C', unlike C – C', is open. It implies that the discussion of the exchange happens next time. In terms of the model C – C', there are two persons involved in an exchange. Both of them achieve the use-value satisfying their demands. Following this, it predicts that the next step is to consume. Compared with this model, exchange mediated by money brings the third

³⁸ With reference to Marx' articulation: 'The two inverted phases of the movement which makes up the metamorphosis of a commodity constitute a circuit: commodity-form' (1990, 207). This circuit 'made by one commodity in the course of its metamorphoses is inextricably entwined with the circuits of other commodities. This whole process constitutes the circulation of commodities' (Marx 1990, 207).

result.³⁹ For instance, a person sells his linen, gaining 2 pounds, then, he spends 2 pounds buying a bible. According to this, the 2 pounds are eventually in the hand of a person who sells the bible. Because money does not have any use-value, this person will use the money to do something else. For instance, they could buy other commodities, but their exchange action in the future is not referred by 'linen – money – bible'. To quote Marx, 'The weaver has undoubtedly exchanged his linen for a bible, this owns commodity for someone else's. But this phenomenon is only true for him. The bible publisher, who prefers a warming drink to cold sheets, has no intention of exchanging linen for his bible' (1990, 207).

The circuit of commodity circulation leads to the exploration of money circulation, hoarding, and payment. Money circulation is implied but not caused by commodity circulation. It is defined as the movements of money from one person's hand to another person's (Marx 1990, 210). In the case provided previously, 2 pounds are transferred from A to B, and then to C. There is no causation between money circulation and commodity circulation

³⁹ Besides, this circuit introduces and leaves a question: how does person b gain money?

1.4 Conclusion

This chapter answers a question: how does *Capital* support materialism? I address this question from two aspects. Firstly, capitalism provides a condition to construct the form of value, which presupposes that commodity exchange is an entry point to explore the situation of production. To be specific, capitalism implies the prevalence of commodity production. Therefore, the social average level of production is represented by the productive situation of commodities. If one person attempts to recognise the socially necessary labour time of a kind of product, for instance A, he could then know this by investigating the production level of commodity A. As a result the subject of value is the produced commodity. In addition, exchange between two produced commodities is a viewpoint from which Marx conceptualises their value relations. Given an exchange between commodity A and commodity B, a form of value, ' x commodity A = y commodity B', is established. This equation demonstrates that x amount of commodity A has the same value as y amount of commodity B. It cannot be a form of value unless the construction of this equation is from the viewpoint of the action done by the owner of A. Therefore the form of value has a direction.

Secondly, I provide a non-Hegelian reading of the concept of transition from 'commodity' to 'capital'. In terms of my interpretation, the conceptual unfolding in *Capital* is formal and

logical. But an Hegelian reading of *Capital* ascribes this transition to the contradictions between properties. It is therefore confined to the issues about properties and entities possessing properties. Contrary to this, and central to my interpretation, is the exchange **action** implied by the form of value. An exchange action is not an entity. It is a pattern involving the relations between two persons. If 'x commodity A = y commodity B' is a form of value, it then means that the owner of A exchanges his commodity with the owner of commodity B. The action carried out by the owner of A implies that the owner of B exchanges his commodity with A. Therefore, based on the action of the owner of commodity B the other form of value, 'y commodity B = x commodity A', is inferred. Given the priority of the exchange action I argue that money is a commodity which not only exchanges with all other kinds of commodities, it also works in every exchange occasion.

The emergence of money brings difference to the form of value. 'x commodity A = y commodity B' is replaced by two forms: 'x commodity A = z money', and 'z money = y commodity B'. Despite no direct exchange between commodity A and commodity B, their value is comparable because they exchange with money separately. This prepares the conceptual implements for Marx to study the exploration of surplus-value. I will analyse Marx's account in Chapter Two. To this point I have demonstrated that the capitalist society

provides Marx with conditions to construct conceptual instruments which are employed to penetrate society. As a result the construction of these instruments is not based on a general ontology of the society. This distinguishes Marx's method from critical realism. This will become clearer with the rest of this thesis.

Chapter 2 Marx's Account of Surplus Value and His Rejection of Methodological Individualism

2.1 Introduction

The issue of methodological individualism is crucial to the philosophy of the social sciences.

It is also important in considering the relationship between critical realism and Marxism.

Firstly, critical realists argue that critical realism delineates and schematises the method employed by Marx. Secondly, critical realism confronts methodological individualism.

Methodological individualism presupposes empirical realism which is an ontology rejected by critical realism. Given this, it is concluded that, from the perspective of critical realism, Marx is on the opposite side to methodological individualism. Furthermore, critical realists propose that they support Marx because the rejection of methodological individualism by critical realism is successful. Herein we have two questions: Firstly, is Marx's theory against methodological individualism? Secondly, does critical realism successfully attack methodological individualism? In this chapter, I will answer the first question.

Methodological individualism is a general principle that 'all social phenomena – their structure and their change – are in principle explicable in ways that only involve individuals – their properties, their goals, their beliefs and their actions' (Elster 1994, 5). This principle,

traditionally, is considered as contradictory to Marxism in the sense that historical materialism is on the opposite side of methodological individualism. Historical materialism makes 'a distinctive claim about the kinds of structures which have primacy in explaining social systems, namely that these are the forces and relations of production' (Callinicos 2004, 40). To be specific, historical materialism is a doctrine proposing that the development of history is driven by the progress of productive force, and thus, by the conflicts of productive force with the relations of production. An old relation of production is transformed because it is no longer suitable to the development of the productive forces. The conflict between productive force and the relations of production is dealt with by class struggle.⁴⁰ This argues for the notion that Marx is a holist, because the *explanandi* in Marx's project are social structures and collective agents.

⁴⁰ As Marx (1859) states, 'In the social production of their existence, men inevitably enter into definite relations, which are independent of their will, namely relations of production appropriate to a given stage in the development of their material forces of production. The totality of these relations of production constitutes the economic structure of society, the real foundation, on which arises a legal and political superstructure and to which correspond definite forms of social consciousness. The mode of production of material life conditions the general process of social, political and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness. At a certain stage of development, the material productive forces of society come into conflict with the existing relations of production or – this merely expresses the same thing in legal terms – with the property relations within the framework of which they have operated hitherto. From forms of development of the productive forces these relations turn into their fetters. Then begins an era of social revolution. The changes in the economic foundation lead sooner or later to the transformation of the whole immense superstructure.'

In contrast to what has traditionally been maintained, analytical Marxism argues that Marx's theory does not have methodological distinctiveness. The method employed by Marx is coherent with mainstream methodology, which includes logical and linguistic analysis, and the mainstream economic methods. The former is developed within twentieth-century philosophy, and the latter is a field in which methodological individualism prevails.

Adherents of analytical Marxism state that Marxist economics needs microfoundations which are essential to explain how social phenomena are produced. In this explanation, game theory, rational choice theory and mathematical modelling are utilised. This individualist explanation is compatible with Cohen's reading of historical materialism. In Cohen's view, historical materialism is a functional explanation of the relationship between productive forces and relations of production. Productive forces are privileged in this explanation, because the features of specific relations of production are functionally explained in terms of its appropriateness to the development of productive forces. This interpretation of historical materialism is irrelevant to the issue of how these features emerged. It thus leaves room for a causal explanation which abides by methodological individualism.

In this chapter, I argue that methodological individualism is not applicable to Marx's account of capitalism. This presupposes that Marx's account is a causal explanation but not an

interpretation. The first point to note is that this standpoint implies that I am on the side of naturalism: ‘The methodological principles relevant to the formulation and evaluation of theoretical discourses are the same in both the natural and social sciences’ (Callinicos 1985, 97). The second is that if an event or an object (A) is identified as a cause, it means that (A) makes a difference to something. In addition, Marx’s explanation of the extraction of surplus value under capitalism is not reducible to the individualist-level explanation involving only individual properties and their states. This conclusion is supported by the argument that the concept of value cannot be reduced to the concept of individual value. I attempt to argue this by a comparison of Marx’s analysis with Cohen’s theory. Despite his approval of the concepts of productive forces and relations of production, Cohen excludes the concepts of value from his project. As a consequence, his theory opens to methodological individualism because the causal explanation of social phenomena is reduced to the individual level.

In the first section of this essay, I will clarify Marx’s articulation of the accumulation of capital. Firstly, I will illustrate how Marx shifts from commodity exchange to production. Central to this transition is his putting forward the question: Why does the sum of value on a social scale increase constantly under capitalism? Marx’s answer to this question directs him

to analyse the composition of the value of a produced commodity and then compare its value with the total value of consumed means production and labour power. His analysis presupposes capitalistic relations of production; his calculation of surplus value bridges the process of producing a kind of commodity with the labour processes of other products. I will delineate this in section two. The final section is concerned with the rejection of methodological individualism by Marx. Firstly, I will consider Cohen's defence of historical materialism. Through identifying historical materialism as involving functional explanation, Cohen argues that the features of relations of production are explained by its function of adopting the development of productive forces. Following this, capitalism is taken as a proof of this general principle. Cohen provides an argument of the relationship between the promotion of productive forces, capitalistic relations of production and capital accumulation. Because Cohen rejects the concept of value, the question in his consideration is different from the question formulated by Marx. Given this, methodological individualism could play a role in his account of capitalism. Marx proposes that capitalists are in competition, and the innovation of their productive forces facilitates them to win. As a consequence, he is for the notion that capitalism develops productive forces. However, his explanation of this is different from that put forward by analytical Marxism, because it cannot be reduced to an individualist level. This is attributed to Marx's insistence on the concept of value.

2.2 The Origin of Surplus Value: Marx's Move from Exchange to Production

Marx stated that surplus value is extracted in the labour processes under capitalism. This conclusion presupposes his move from circulation to production, which is driven by his explanation of the valorisation of capital. 'The valorisation of capital' is an abstract of the process through which more value is produced by agents inputting an amount of value to do something. On the one hand, Marx is aware that capital increases and expands rapidly on a worldwide scale. On the other hand, whereas the valorisation of capital requires circulation, circulation is not sufficient for increasing capital. To quote Marx: 'Capital cannot therefore arise from circulation and it is equally impossible for it to arise apart from circulation' (1990. 268). Hence, Marx is directed to explore production. He finally lays capital valorisation in the grounds of the capitalistic mode of production. Surplus value is produced in a labour process dominated by capitalistic relations of production and then is realised by circulation.

The definition of 'surplus value' and 'capital' relies on a given whole: $M - C - M'$ ($M' = M + \Delta M$). This model is a counterpart of $C - M - C'$. It is neither prior nor posterior to commodity circulation. As Marx states, 'The direct form of the circulation of commodities is $C - M - C \dots$ But *alongside* this form we find another form, which is quite distinct from the

first: $M - C - M$, the transformation of money into commodities and the re-conversion of commodity into money: buying in order to sell' (1990, 247-248). By reference to the intelligibility of actions, Marx states that the amount of money increases in the end; hence, there is ' $M - C - M'$ ' ($M' = M + \Delta M$). He says: 'Now it is evident that the circulatory process $M - C - M$ would be absurd and empty if the intention were, by using this roundabout route, to exchange two equal sums of money, £100 for £100. The miser's plan would be far simpler and surer: he holds on to his £100 instead of exposing it to the dangers of circulation' (Marx 1990, 248). Capital is defined as the original value (M), which aims at its valorisation through buying for selling. It must be money; money, however, is no longer capital if it withdraws from the process of valorisation. Surplus value is the increment over the original value (Marx 1990, 251). It is the difference, ΔM , between M and M' .

Marx's move from circulation to production presupposes the importance of total social capital in his conceptual scheme. I will support this argument by starting from a 'contradiction' between his definition of surplus value and his statement that circulation does not result in surplus value. On the one hand, because surplus value cannot be entirely attributed to circulation, Marx ascribes it to production. As he states,

The formation of surplus value, and therefore the transformation of money into capital, can consequently be explained neither by assuming that commodities are sold above their value, nor by assuming that they are bought at less than their value. (Marx 1990, 263)

On the other hand, however, his definition allows for a situation in which one person buys cheaper and sells dearer. Therefore, this person gains surplus value through circulation.

The solution of this conflict attaches the importance of the sum of value in a scale identified by ' $M - C - M'$ '. Marx does not deny that one person, or some persons, can gain surplus value through buying cheap and selling dear. Nevertheless, neither a society nor an individual can count on this way to gain surplus value constantly. As a way to produce surplus value, buying cheap and selling dear is temporary and reducible (Marx 1990, 259). It is not a constant way to gain surplus value. For instance, an agent for a British brand earns huge profits by purchasing commodities at a lower price in Britain and selling them at a higher price in China. His business is under the threat of shopping online: if all customers recognise that they could save money by purchasing commodities online, this agent would then be displaced from the trade process. Hence, a mediated exchange pattern, $M - C - M'$, is replaced by a one-sided phase of the ordinary circulation of commodities: $M - C$. Because of this, buying cheap and selling dear is practically reducible.

Provided there exists the reduction of $M - C - M'$ to $M - C$, Marx argues that the question at issue is: Does commodity circulation produce surplus value? Because $M - C$ is part of the

process 'C – M – C', the discussion of cheap buying and dear selling 'does not take us outside the sphere of the simple circulation of commodities' (Marx 1990, 259). Marx's answer to this question in general is: commodity circulation distributes value on a given scale; albeit some traders benefit from distribution, 'the *sum of the value* in circulation can clearly not be augmented by any change in their distribution' (Marx 1990, 265).

Furthermore, given a scale of circulation, buying cheap and selling dear could bring profits to some individuals who operate within this scale. However, it cannot increase the aggregate of value in this scale. As a consequence, by reference to this scale taken as a whole, there is no surplus value being produced by commodity circulation. In a society where commodity production and exchange prevail: 'Buyers and sellers are mutually dependent because none of them possesses the object of his own wants, and each holds in his hand the object of another's wants' (Marx 1990, 262). Hence, a seller is also a buyer. With respect to this, Marx provides an example in *Capital*. Supposing every commodity is sold at a price 10% higher than its value in a given market. If a person possesses a commodity worth £100, he then could gain £10 surplus value by selling his commodity at £110. However, after selling his own commodity, this person has to purchase other commodities from someone else. In the latter situation, he turns out to be a buyer, who purchases another commodity at a price 10% higher

than the value of this commodity. Because of this, his profits gained by dear selling will lose in purchase. ‘The net result is that all owners of commodities sell their goods to one another at 10 per cent above their value, which comes precisely to the same as if they sold them at their true value’ (Marx 1990, 263). Hence, in the end, after commodity circulation the realised value by selling commodities dear in a market is the same as the sum of the value of commodities at the beginning of commodity circulation. Similarly, the sum of value in a given market does not change because of cheap buying. This is because the person who benefits through cheap buying must firstly sell his commodity at a price lower price than its value; otherwise, he cannot have the money for purchasing. In other words, losing is the precondition of gaining.

Thirdly, the enrichment of the whole capitalist class cannot depend on buying cheap and selling dear. Although cheap buying and dear selling brings benefits to some traders, it cannot be a way through which a whole class thrives. Marx demonstrates: ‘The capitalist class of a given country, taken as a whole, cannot defraud itself’ (1990, 266).⁴¹ This conclusion is deduced from the statement that commodity circulation does not bring a difference to the sum of value in a given scale. Provided there is a certain amount of value in commodity

⁴¹ This statement firstly implies that the capitalist class, taken as a whole, makes a fortune. Secondly, it presupposes that capitalists are traders on the market; they are the possessors of commodities.

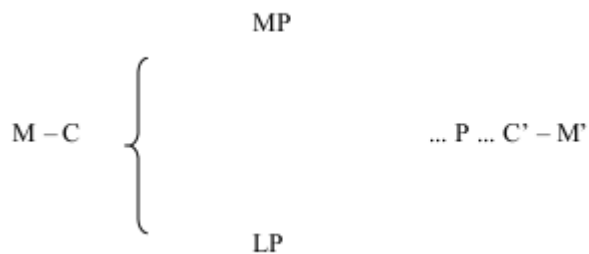
circulation, if some persons gain profits through this circulation, it is then concluded that there are some other persons who lose in exchange.

Marx states that if the valorisation of social capital does not arise from commodity circulation, it must result from the consumption of commodities. Because consumption depends on the use-value of commodities, the increment of original value counts on the use-value of commodities. The use-value of these commodities, as Marx states, must possess the ‘peculiar property of being a source of value’ (1990, 270). Marx’s approval of a labour theory of value works here. Labour power is the recourse of valorisation because only the labour through which labour power is consumed creates value:

In order to extract value out of the consumption of a commodity, our friend the money-owner must be lucky enough to find within the sphere of circulation, on the market, a commodity whose use-value possesses the peculiar property of being a source of value, whose actual consumption is therefore itself an objectification [*Vergegenständlichung*] of labour, hence a creation of value. The possessor of money does find such a special commodity on the market: the capacity for labour [*Arbeitsvermögen*], in other words labour-power [*Arbeitskraft*]. (Marx 1990, 270)

The introduction of the consumption of labour power brings differences to the explanation of $M - C - M'$: not only exchange, but also the production of commodities is involved in increasing capital. Notwithstanding its availability for describing capital valorisation, $M - C$

– M' is mediated by different elements. The procedure for the valorisation of capital is specified as:



In general, this graph describes that capitalists purchase means of production (MP) and labour power (LP) by capitals (M). Means of production and labour power are combined in labour processes, producing *new* commodities (C') which are then sold in a market ($C' - M'$). In this situation the increment of capital is not explained by selling commodities at a price higher than the price of purchasing them. Rather, it is because *new* commodities ‘contain surplus value over and above the value of the advanced capital, M. This is shown by the sale of the output for more money capital, $M' > M$ ’ (Fine 2004, 52-53). As a consequence, the sum of value in the scale identified by $M - C - M'$ is increased by the end of this process.

2.3 The Exploitation of Surplus Value: Presupposition and Calculation

One feature of Marx’s account of surplus value is that capitalistic relations are presupposed.

Labour processes, however, are in consideration when Marx calculates the amount of surplus

value. One gets the *magnitude* of surplus value through subtracting the sum of the value of means production and labour power from the value of commodities. *Quantitatively*, surplus value is also the difference between the value of labour power and the added value.⁴²

Hence,

The magnitude of the value of commodities = the amount of the value of means of production + the amount of the value of labour power + the amount of surplus value

Or,

The magnitude of the value created by the consuming labour power = the amount of the value of labour power + the amount of surplus value.

These two equations are not forms of value. They simplify several forms of value, which are directed equations of the value of produced commodities (Chapter One). The establishment of these forms of value presupposes the totality of a process: $M - C - M'$. Correspondingly, capitalistic relations of production are presupposed. To quote Callinicos: 'The production

⁴² I put emphasis upon 'quantitatively' because these equations are irrelevant to the creation of value.

relations comprise the relationship of the direct producers to the means of production and their labour-power, the nature of any non-producing owners and the mode of appropriation of surplus-labour from the direct producers by any such owners' (2004, 54). In capitalism, relations of production are characterised by the exchange between labour power and variable capital, the ownership structure in capitalism, the competition between individual capitals and the exploitation of surplus value from the labour process. The list of these presuppositions facilitates an understanding of Marx's analysis of surplus value.

The forms of value presupposed by the two equations are: x commodity = y money; p money = q means of production; r money = s labour power. The quantitative aspects of these forms (x , y , p , q , r and s) are determined by the magnitude of value embedded in these products.

According to my previous argument (Chapter One), a form of value is a directed equation which presupposes the exchange between two different commodities. As a consequence, the forms of value listed above indicate the sale of produced commodities, and the purchase of means of production and of labour power. With respect to the model of capital: $M - C - M'$, it is argued that, firstly, someone purchases means of production and labour power with money, and then sells products manufactured by consuming these elements productively. The money he gains by selling produced commodities is more than that inputted by him at the

beginning. In addition, because an exchange between commodities is bi-directional, it is implied that, firstly, someone buys produced commodities in a market: $y \text{ money} = x \text{ commodity}$. Secondly, there are persons selling means of production or labour power: $q \text{ means of production} = p \text{ money}$; $s \text{ labour power} = r \text{ money}$. Finally, the simplification of the forms of value is supported by Marx's concept of money. In the previous chapter, I have argued that money brings a difference to the comparison of one commodity's value with that of others. If two commodities exchange with money respectively and their values are represented by money, their values are then comparable, notwithstanding the lack of a direct exchange between them.

The value forms based on the exchange between constant capital and means of production, as well as between variable capital and labour power, supports Marx's analysis of the composition of capital. In terms of his theory: the value of labour power is equal with variable capital, and the value of the means of production is equal with constant capital. As Marx states,

As value, it (the composition of capital) is determined by the proposition in which it is divided into constant capital, or the value of means of production, and variable capital, or the value of labour-power, the sum of wages. As material, as it functions in the process of production, all capital is divided into means of production and living labour-power. This

latter composition is determined by the relation between the mass of the means of production employed on the one hand, and the mass of labour necessary for their employment on the other. I call the former the value-composition, the latter the technical composition of capital. There is a close correlation between the two. To express this, I call the value-composition of capital, in so far as it is determined by its technical composition and mirrors the changes in the latter, the organic composition of capital. (Marx 1990, 762)

The technical composition of capital, the ratio between the mass of means of production and the mass of labour power to consume them, stands for the productivity of a society. As Marx (1990, 773) states, ‘The level of social productivity of labour is expressed in the relative extent of the means of production that one worker, during a given time, with the same degree of intensity of labour power.’

The exchange between labour power and variable capital leaves a question: Why do labourers sell their labour power? The answer is contained within the ownership in capitalism: a labourer possesses nothing except for his labour power. In order to survive, he sells his labour power to capitalists, working for those persons who possess the products manufactured by him. In *Capital*, Marx states that the value of labour power is reproduced in the labour process, while the value of the means of production is transferred. By reference to the situation that labour power is required for labour, it is difficult to distinguish the transfer of

value from the reproduction of value. Both means of production and labour power are necessary to the manufacture of new products. One argument for this distinction is that labour is necessary for a labourer's reproduction, that is, his maintenance, which depends on the means of subsistence. Hence, if labour is required for the reproduction of labour power, it is concluded that labour is necessary for one labourer to achieve the means of subsistence. This, however, does not imply that products are possessed by indirect producers. For instance, a person produces crops, possesses them and then consumes them. In this case, labour is necessary for his maintenance, albeit he does not work for others. The appropriation of products by indirect producers presupposes that, firstly, labour is a necessary condition for direct-producers to maintain themselves. Secondly, direct-producers do not have direct access to the means of production, because they are not owners of those means. As a consequence, the labour done by direct labourers presupposes their relations with the possessor of the means of production. Their achievement of means of subsistence is linked with their labour in a certain way. One characteristic of capitalism is that direct-producers are employed as labourers. They are employed in the sense that they exchange their labour power with capital. Hence, they are wage-paid workers, who purchase their means of subsistence by wages.

The competition between individuals is also presupposed. Firstly, individual capitalists, as well as individual capitals, are in competition. For one thing, as I previously argued in Chapter One and at the beginning of this chapter, capital, $M - C - M'$, is an abstraction of action model. Individual capitalists practise this model in their actions. The increment of the sum of social capital is realised through their practice as ‘the growth of the social capital is accomplished through the growth of many individual capitals’ (Marx 1990, 776). As a consequence, it opens up an issue: the relationship between capitalists’ actions and their reasons for doing these actions. For another, the construction of the directed equation, $x \text{ commodity} = y \text{ money}$, presupposes that capitalists sell their products in a market. As a consequence, individual capitalists are in competition. Their actions are affected by the pressure of competition. Secondly, the competition between labourers is presupposed. In a capitalistic society, there are persons who possess no more than their labour power. They cannot but sell their labour power to capitalists. Hence, the free labour market is formed and the sellers of labour power are in competition. In *Capital*, Marx states that the competition between labourers provides capitalists with the chance to reduce wages.

Albeit some aspects of capitalistic relations of production are *presupposed*, they are irrelevant to the *calculation* of surplus value. The latter concerns labour processes: the processes of

producing new commodities, the processes of producing means of production and that of producing labour power.

The calculation of surplus value is based on Marx's analysis of the value of produced commodities. A labour process is a purposeful activity aiming at the production of use-value. 'The simple elements of the labour process are (1) purposeful activity, that is work itself, (2) the object on which that work is performed, and (3) the instrument of that work' (Marx 1990, 284). The latter two come under the title of the means of production. Given one labour process, different articulations are provided from two aspects: a qualitative one and a quantitative one.⁴³ The former concerns the consumption of the means of production in a labour process. The properties of means of production define a labour process as what it is. A labour process is classified as a kind of labour producing a specific kind of commodity (or of use-value). Labour makes new kinds of commodities by the means of production, the natural properties of which have a causal influence on the formation of the natural properties of new commodities. In *Capital*, Marx provides an example of producing yarn. The production of yarn needs cotton, the object of production, and a spindle, the instrument of production.

These two elements are consumed in the process of producing yarn. Cotton and spindle

⁴³ These two aspects also correspond to concrete labour and abstract labour: the production of use-value and the expenditure of labour time.

defines a sort of labour producing yarn: spinning. On the contrary, the first element of the labour process, purposeful activity, captures the quantitative aspect of a labour process: the expenditure of labour time. It demonstrates the labour time of manufacturing a kind of commodity by means of production. Hence, it characterises the time of *one* kind of labour: how long it takes to produce a new kind of commodity. Take spinning for instance, it indicates *only* the time taken to *transfer cottons to yarns by spindles*.

The calculation of the value of a commodity depends on the analysis of labour processes. The value of a commodity is determined by the socially necessary labour time of producing it.

The socially necessary labour time to produce a commodity is the time required, typically in average conditions of production, to manufacture this commodity plus the socially necessary labour time required to produce the means of production consumed in this manufacture. With respect to the example of producing yarn, as Marx states,

In determining the value of the yarn, or the labour-time required for its production, all the special processes carried on at various times and in different places which were necessary, first to produce the cotton and the wasted portion of the spindle, and then with the cotton and the spindle to spin the yarn, may together be looked on as different and successive phases of the same labour process. (Marx 1990, 294)

By reference to the labour process of producing it, the value of a commodity consists of transferred value and added value. I will clarify this by reference to the example of spinning yarn. Transferred value is the value of the means of production consumed in a labour process. Consumed means of production embody value because they are products. Their value is transferred, but not eliminated, in producing another kind of commodity. This is because these materials are required for producing a new commodity, and their natural properties causally influence the natural properties of this new commodity. Hence, the time spent in producing them is considered as one part of the socially necessary labour time of producing this new commodity. In the case of spinning, the time socially required to produce yarn includes the labour time of producing cotton and spindles. Because the value of yarn is determined by the socially necessary labour time to produce it, the value of yarn includes the value of consumed means of production. Hence, the value of 'the quantity of labour expended to produce the article which has been consumed forms a part of the quantity of labour necessary to produce the new use-value; this portion is therefore labour *transferred* from the means of production to the new product' (Marx 1990, 308). Added value is created by the labour *which transforms the means of production into commodities*. This labour is thus a consumption of the means of production and the manufacture of new commodities. With respect to the example of producing yarn, the added value of yarn is the value brought about

by spinning. It is irrelevant to the labour-producing means of production. This part of the value of a commodity concerns only the consumption of labour power in spinning. Hence, if the labour time required to *spin* 6 lb. of yarn under a social average level is 6 hours, represented by £3, then the new value added by this labour is £3.

Production generates surplus value. This is because the value of produced commodities is more than that of the total value of consumed means of production and labour power.

Quantitatively, the latter is equal to the sum of capital used to purchase means of production and labour power. Surplus value is also a difference between added value, the value created by labour, and the value of labour power: the difference between the socially necessary labour time of labour power and the socially necessary time required to manufacture a new product by means of production. According to my analysis in the previous paragraph, the value of a product is determined by the socially necessary time of producing it (T). T is the sum of the socially necessary labour time of the consumed means of production (T_m) and that of making a new product from the means of production (T_n): $T = T_m + T_n$. According to Marx's analysis, the amount of surplus value is the difference between the value of commodities and the value of consumed means of production in a working day plus the value of labour power. The value of consumed means of production and labour power are

determined by their socially necessary labour time: let us say T_m' and T_l . Hence, the amount of surplus value (S) is the difference between $(T_m + T_n)$ and $(T_m' + T_l)$. Because T_m is equal to T_m' , the amount of surplus value is the difference between T_n and T_l ; that is, the difference between added value and the value of labour power.

Under standard conditions of production, if one labourer works 15 hours a day, in which he creates 5 coats, it can then be concluded that 5 coats are the embodiment of 15 hours of labour time; one coat is of 3 hours. Supposing the labour of one hour is represented by £2, labour taken to produce 5 coats is represented by £30. If the socially necessary labour time of labour power is £10, representing 5 hours, there are two ways to calculate surplus value. The first is based on labour time. In 15 hours working time, 5 hours is used to produce the equivalent of labour power. Hence, surplus value is 10 hours. The second is in terms of money or the quantity of commodities. According to this method, surplus value is £20, the value of 6 coats. However, the rate of surplus value is not changed with different methods: the rate of surplus value = $10/5 = 20/10 = 2$. With reference to labouring time and the time required to reproduce labour power, Marx states that surplus value increases under three conditions. The first is to enlarge the absolute amount of value by extending the working day. For instance, if the working day increases to 20 hours, then the amount of surplus value is 15

hours. As a consequence, the rate of surplus value increases to 3:1. The second method is to increase relative surplus value: the rate of surplus value increases by reducing the value of labour power, albeit the working day remains the same. In Marx's terms, if the socially necessary time of producing subsistence is reduced, the value of labour power is reduced. As a consequence, the time used to produce the equivalent of labour power is less; the rate of surplus value increases. For instance, the value of labour power is reduced by 1 hour. Provided we have the same working day, the rate of surplus value is $= (15-4)/4$. The time used to create surplus value used to be 10 hours; however, it is now 11 hours. In *Capital*, Marx demonstrates a third situation in which the surplus value exploited by *an individual capitalist* grows. He states that if the productivity of an individual capital is above social average level, then a capitalist gains more surplus value. Marx's explanation of this demonstrates his rejection of methodological individualism. Hence, I will discuss it in the following part.

2.4 Marx's Rejection of Methodological Individualism

Cohen attempts to re-establish historical materialism through a functional explanation of the relationship between productive forces and relations of production. He, however, constructs the primacy of productive forces at the cost of submitting to methodological individualism.

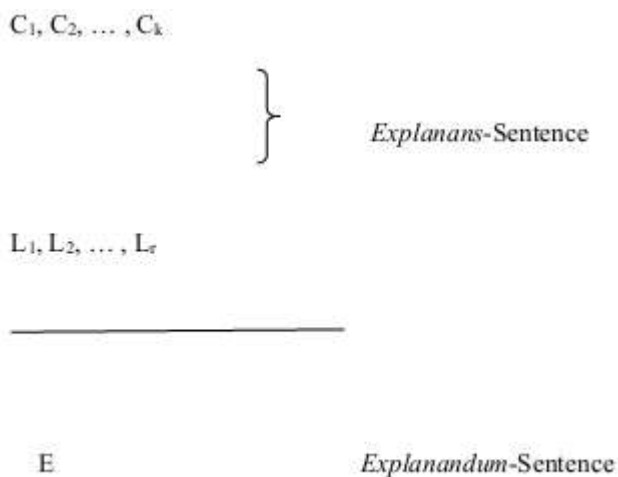
The following argument is not about the plausibility of historical materialism. It argues that Marx's rejection of methodological individualism does not rely on the principles of historical materialism. Central to his rejection is the concept of value. As a contrast, Cohen's theory will be clarified. Cohen's submission to methodological individualism is linked with his resistance to the labour theory of value.

2.4.1 Cohen's Theory and His Coherence with Methodological Individualism

In *Karl Marx's Theory of History: a Defence (KMTH)*, Cohen upholds Marx's propositions in the 1859 Preface. Like dialectical materialism, Cohen firstly agrees with Marx's articulation of the primacy of productive forces over the relations of production. Secondly, he also underlines the point that historical materialism is a scientific explanation of history. What distinguishes Cohen's theory from dialectical materialism is that the explanatory primacy of productive forces is supported by its functionality, but not causality, in explaining the relations of production. In this section, I will firstly clarify Cohen's defence of historical materialism and demonstrate that Cohen's account of capitalism in *KMTH* is employed to endorse the general principles of historical materialism. Finally, I will introduce a critique of Cohen's interpretation of historical materialism before reaching a conclusion: Cohen's

defence of historical materialism does not settle the explanatory autonomy of social structures, because the assumption of human nature, on which it is established, is individual. In addition, it will be shown that Cohen's account of capitalism opens it up to methodological individualism because central to it is the competition between individual capitals.

A functional statement ascribes one or more functions to a specific event or an object. The form of it is 'the function of x is to y'. This statement is explanatory if it is subsumed to a general statement which is about a law concerning event types. This conclusion, as Cohen admits, is based on an analogy with a D-N model (deductive-nomological model) of causal explanation which was argued by Carl Hempel. The schema of this model is:



L_1, L_2, \dots, L_r are the covering laws, each of which asserts a regularity that, whenever and wherever a circumstance of a specified kind C occurs at a certain place and time, 'an event of a specified kind E will occur at a place and time which is related in a specified manner to the

place and time of the occurrence of the firstly' (Hempel 1965, 231–232). C_1, C_2, \dots, C_r are statements describing the particular circumstances invoked. 'Jointly these sentences will be said to form the *explanandum* S, where S may be thought of alternatively as the set of explanatory sentences or as their conjunctions' (Hempel 1965, 336). The conclusion E is a sentence stating a particular phenomenon under consideration. It is an *explanandum*-sentence. It is logically deduced from the conjunction of *explanans* statements. The *explanandum* event referred to by E is explained 'by showing that the phenomenon resulted from certain particular circumstance, specified in C_1, C_2, \dots, C_k , in accordance with the laws L_1, L_2, \dots, L_r ' (Hempel 1965, 337).

A D-N model of causal explanation, in Cohen's terms, indicates the condition under which a precedent statement, 'c precedes e', is explanatory. It is explanatory because, firstly, the particular events referred to by 'c' and 'e', respectively, are subsumed to the types of events described by 'C' and 'E'. Secondly, these two event types are linked by a general law: whenever event type C occurs, event type E occurs. With respect to this, Cohen states that a functional statement is explanatory if it relates to a law in the same way as a precedent statement to a causal law. The form of this law is:

IF it is the case that if an event of type E were to occur at t_1 then it would bring about an event of type F at t_2 ,
THEN an event of type E occurs at t_3 (Cohen 2001, 260)

Or,

IF it is true of an object O that if it were F at t_1 , then it would, as a result, be E at t_2 ,
THEN O is F at t_j (Cohen 2001, 261)

For example, let's suppose a rain dance is being performed now. This rain dance is functionally explained by a conditional statement 'this rain dance is performed because it sustains social cohesion'. The explanatory function of this statement is supported by a general statement: 'Whenever performed, rain dance R would bring about, shortly thereafter, a rise in social cohesion, rain dance R is performed' (Cohen 2001, 261). Hence, the performance of this rain dance is explained by the *linkage* of it with its consequence: if the rain dance is performed, then there would be social cohesion. It is not explained by its consequence: social cohesion. This connection, in terms of Cohen, informs that a social condition was such that a rain dance would have increased its social cohesion and implies that inferable conditions occasioned the performance of the dance.

With respect to this, the primacy of the productive forces over the relations of production is defined as:

The production relations are of kind R at time t because relations of kind R are suitable to the use and development of the productive forces at t, given the level of development of the latter. (Cohen 2001, 160)

or,

Production relations have the character they do because, in virtue of that character, they promote the development of the productive forces. (Cohen 2001, 249)

According to Cohen, specific production relations are explained in terms of their function. If the relations of production are so-and-so at time t, then the productive forces would have to be developed. In a functional explanation, the productive forces are primary because the function of relations of production is to adapt the development of the productive forces.

Hence, the development is presupposed by, and thus prior to, the function of relations of production. Cohen's articulation, firstly, defines relations of production as a possessor of some features. Secondly, it states that because of these features, a relation of production is classified as a kind. Thirdly, the adaption of relations of production to the development of the productive forces explains its features. Hence, a functional explanation is irrelevant to the formation of the possessor of features; it does not inform the cause of relations of production. Neither does this *functional* explanation answer why production relations have this function.

It informs us that relations of production do have this function. The explanation of this

function appeals to the features of specific kinds of production relations and to the levels of productive forces at different times.

The primacy of the productive forces is established in historical materialism, because its development is presupposed by the function of production relations. Herein lies a question: Why do productive forces develop? Cohen (2001, 134) answers this question by the development thesis: the productive forces tend to develop throughout history. The tendency of its development is ascribed to the nature of human beings: rationality, intelligence and scarcity. To quote Cohen:

A measure of acceptance of the development thesis may be motivated by reflection on three facts:

- (c) Men are, in a respect to be specified, somewhat rational.
- (d) The historical situation of men is one of scarcity.
- (e) Men possess intelligence of a kind and degree which enables them to improve their situation. (Cohen 2001, 152)

A given level of productive forces is compatible only with certain types of relations of production, which are suitable for its promotion.⁴⁴ Because the productive forces necessarily

⁴⁴ Cohen states: 'Given a certain level of development of the productive forces, or expansion of human power and its material extensions, a certain set of production relations, or social form, is appropriate as framework for use and further development of that power' (Cohen 2001, p 97).

will improve, a new kind of relations of production will emerge given the incompatibility of old relations of production with the levels of productive forces.

Provided we have a definition of the relationship between the productive forces and relations of production, it implies that relations of production are capitalistic, because capitalistic relations of production are suitable to the development of the productive forces. Capitalism, in *KMTH*, is *an instance* to support the general principles of historical materialism:

production relations are functionally explained in terms of their adaption to the development of the productive forces. As evidence, capitalism is argued as being able to promote productive forces. Capitalism's possession of this function is ascribed to its features: ownership of capitalism and capital accumulation.

Capitalistic relations of production, fundamentally, are characterised by a specific ownership.

As Cohen states,

It is the society whose immediate producers own their labour power and no other productive forces. It is the economy of free labour, free from serf- or slave-like burdens, free (bereft) of means of production. (Cohen 2001, 181)

This is the structural definition of capitalism. The other definition is a modal one. It states that the purpose of capitalist production is to accumulate using 'exchange-value to produce

more exchange-value and then to use the additional exchange-value to produce still more, and so on' (Cohen 2001, 181). Cohen provides the argument that explains the relationship between these features, and their relationship with the progress of productive forces.

There are two steps taken by Cohen to discuss the relationship between ownership in capitalism and the accumulation of capital. Central to the argument is the existence of free labour, which is based on the fact that immediate producers possess no more than their labour power. Cohen argues for the deduction of capital accumulation from the existence of the free labourer:

- (a) If this deduction is not valid, it is then argued that the existence of free labour is coherent with the absence of capital accumulation.
- (b) The existence of free labour entails a free labour market, which implies a free market. Because of the confirmation of a free market, it is concluded that there is commodity production.
- (c) Following (b), it is argued that a free market is parallel with commodity production. Hence, there is competition between individual capitals.

- (d) Based on the principle of competition, it is argued that one capitalist cannot survive if the amount of exchange value input into production does not grow. Cohen (2001, 183) says: ‘Competition between producing units imposes a policy of capital accumulation: a unit not disposed to increase the exchange-value at its disposal will lack the resources to prevail in competition.’
- (e) Hence, the existence of free labour implies that of capital accumulation. Statement (a) is rejected.

Secondly, Cohen argues that the accumulation of capital necessitates free labourers. If this statement is false, it is then concluded that the accumulation of capital would be possible without free labourers. In his book, Cohen demonstrates that this situation is possible: slavery is coherent with capital accumulation. Hence, the logical necessity is not confirmed. Cohen, then, turns to argue that slavery does not accumulate so much capital as a free labour market does. Consequently, it is argued that slavery ‘will not consort with capital accumulation’ (Cohen 2001, 491).

Considering the development of the productive forces and structural property of capitalism, Cohen states that:

Primacy of the forces allows that capitalist relations antedated the productive forces characteristic of capitalism. That the formal subjugation of labour to capital went before the real subjugation is consistent with the primacy doctrine. Primacy requires that improved forces backed the emergence of capitalist relations, and that the latter endured because they advanced productive power. (Cohen 2001, 180)

Cohen states that, firstly, the capitalistic relations of production do improve productive forces.

Secondly, if production is developed systematically, then relations of production are

capitalistic. Capitalistic relations of production develop productive forces, and capitalistic

ownership implies the accumulation of capital. A capitalist cannot but improve productivity.

Being situated in capitalistic relations of production, a capitalist is required to sell products

not produced by him. Because this is available to every capitalist, one capitalist must be in

competition with other capitalists. In order to survive in competition, he desires the

enlargement of exchange value. This requires him to possess more surplus products, the

quantity of which depends on productivity. As a consequence, a capitalist cannot but improve

his productivity. To quote Cohen:

Whatever explains comparative exchange-value magnitudes, and whatever may be the source of profit on capital, exchange-value is what the capitalist firm must seek, on pain of ruin in competition. But exchange-value will not be accumulated unless use-value is produced efficiently. Opportunities to improve productivity must be found and seized, and so the productive forces move forward systematically. The imperative laid on the firm is to make money, but it can do that only by selling things, which must therefore be produced, and, because of competition, produced as competently as possible. (Cohen 2001, 197)

Cohen argues the second statement by demonstrating that non-capitalistic relations, such as slavery, are not suitable to the development of the productive forces as much as capitalism. There are several reasons for this. The first is that direct labourers in other economic structures do not contribute to the expansion and innovation of techniques because they do not have the skills required for the application of new techniques. A labourer cannot take over these skills unless he is educated. Slaves, because of their social status, have difficulties in gaining an education (Cohen 2001, 191). Further, a slaveowner and a capitalist exploit the same amount of surplus products. However, the ratio of surplus products which contributes to promoting productivity by the former is less than that by the latter. This is because 'slaves must not only be fed and housed, but strictly policed: they require more extensive supervision than do free workers' (Cohen 2001, 192). Thirdly, the development of the productive forces inspires consumption, and consumption stimulates self-awareness and this threatens the persistence of slavery (Cohen 2001, 192). Finally, the owner of slaves does not necessarily promote productivity by surplus products. It is possible for him to enlarge surplus products; however, he does not have to. This is ascribed to the situation that the improvement of productive forces is not bound up with one person's existing as a slaveowner (Cohen 2001, 196).

Cohen's theory is compatible with methodological individualism. To quote his statement in the introduction to the 2000 edition of *KMTH*:

All analytical Marxism is analytical in the broad sense, and much is analytical in the narrow sense ... and analytical thinking, in the narrow sense of 'analytical', is opposed to what might be called 'holistic' thinking. (Cohen 2001, *xvii*)

In that narrow sense the analyticalness of analytical Marxism is its disposition to explain molar phenomena by reference to the micro-constituents and micro-mechanisms that respectively compose the entities and underlie the processes which occur at a grocer level of resolution. (Cohen 2001, *xxiii*)

This support for methodological individualism is compatible with Cohen's approval of his functional explanation of historical materialism because the mission of the latter is different from the former. Take the principles of historical materialism for example, the truth of the primacy of productive forces over relations of production is settled by a functional explanation. This, however, does not answer why and how productive forces develop. In other words, a functional explanation is not a causal one.⁴⁵ If one attempts to provide a

⁴⁵ In the introduction to the 2000 edition, Cohen provides an example of the gas laws. He states: 'It is one thing to know, as phenomenological thermodynamics did, that the gas laws hold true. It is another to know how and why they do, and that further knowledge requires analysis, in the narrow sense, which statistical mechanics provided by applying' (Cohen 2001, *xxiv*).

causal explanation of social phenomena, then, Cohen argues, he or she ought to abide by methodological individualism.

If we go further into Cohen's theory in *KMTH*, it is argued that the causal explanations provided by him in this book are coherent with methodological individualism. Firstly, Cohen lays the development of productive forces on the grounds of human nature. A theoretical tension arises from this proposition, and the solution of it relies on methodological individualism. Joshua Cohen states that Cohen's argument is circular. On the one hand, he 'explains the tendency of development by appeal to the fact that structures tend to correspond to the requirements of productive development' while, on the other hand, he 'explains the tendency to correspondence by appeal to the tendency to development' (Joshua Cohen 1982, 265). In terms of Cohen, the development of the productive forces is a general tendency. This tendency is attributed to human nature: rationality, intelligence and scarcity. Since these features are the assumptions of individuals, it is concluded that a rational individual is intelligent enough to expand productive output to the extent that his material needs are satisfied. Herein lies a question: Why is it, in general, true that the aggregate result of the pursuit of material advantage by individuals is a growth in productive forces? To answer this question, Cohen cannot appeal to human nature. Human nature is individual. It explains the

behaviours of individuals. As a consequence, the coherence between the aggregate result of individual behaviours and the general tendency of productive forces is explained in terms of the features of social structures: relations of production. Hence, the general tendency of productive forces is explained by some features of the relations of production. This is contradictory to Cohen's viewpoint: the characteristic of the relations of production are explained by their adaption to the development of the productive forces, and thus explained by the productive forces.

To avoid this dilemma, Cohen highlights the independence of the development of productive forces stating that 'there is an autonomous tendency for the productive forces to develop' (Cohen & Kymlicka 1988, 172). Cohen proposes that human nature which drives the innovation of productive forces is trans-historical.

In addition, Cohen admits that in a historically-located society, a particular kind of relation of production influences productive forces. It is the features of specific relations of production, such as capitalism, that explain the progress of productive forces at a certain time. The formation of, and the transformation of, relations of production require the actions of agents who are motivated by their reasons and intentions. Therefore, as Alan Carling notes, Cohen

cannot maintain that ‘people act directly on the forces from their extra-historical vantage point’, otherwise, his theory ‘would bypass the relations of production altogether’ (Carling 1993, 37–38). Hence, it leads to the question: What is the relationship of reasons and intentions with the nature of human beings? If the former is causally explained by the latter, then the practices transforming production relations are causally explained by the nature of human beings. As a consequence, the nature of human beings, such as rationality, is the cause of relations of production. Under this situation, if the primacy of productive forces over relations of production is defended, then ‘the intention to improve the forces governs the intention to change the relations: it is a primacy of one intention over another in the consciousness of a relevant actor’ (Carling 1993, 38). Hence, the primacy of productive forces is ascribed to the individuals’ intentions. The explanatory autonomy of social structures cannot be established through Cohen’s version of historical materialism.

Secondly, Cohen’s account of the connection of capital accumulation with the promotion of productive forces and with the structural property of capitalism opens the way to methodological individualism. In Cohen’s view, capital accumulation is required if an individual capitalist wants to survive in competition. Due to the need to increase capital, the individual capitalist has to improve productivity, because he cannot earn more unless he sells

more products. More sales require that the workers employed by him manufacture more products. As a consequence, the improvement of productive forces in capitalism is the aggregate outcome of the sorts of individual actions that are constant under capitalism. Hence, the explanation of the innovation of productive forces in capitalism opens to methodological individualism:

(1) There is an explanation of an individual capitalist's actions. An individual capitalist chooses to improve their productivity, because advancing productivity is a certain way of maximising his profit. The increment of profit is necessary for him to survive in market competition.

(2) It implies an explanation of workers' actions. Their actions are explained in terms of their reasoning that working for capitalists is the way to gain wages which are required for their survival. Both (1) and (2) are compatible with Elster's rational choice theory which assumes that people will choose the best action in the feasible set (Elster 1999, 26).

(3) It is argued that the distinction between the worker's choice and the capitalist's choice presupposes that individuals are in capitalistic relations of production. Therefore, an explanation of the improvement of productive forces combines an explication of capitalist

relations of production. Methodological individualism, however, does not preclude social relations from explanation.⁴⁶

(4) There needs to be an account of market competition. The development of productive forces under capitalism is a macro-phenomenon. If this phenomenon results from individual actions, then those kinds of actions are ever-present. This implies that if the innovation of productive forces by capitalists is profit motivated, then this motivation is plausible to some extent. With respect to the temporal dimension of a macro-phenomenon, it presupposes that capitalists do earn more profits by improving their productive forces in competition. Herein lies a question: What is the relationship between market competition, the increment of profit and the innovation of productive forces? In terms of Cohen, capital accumulation is required if an individual capitalist wants to survive in competition. Due to the need to accumulate capital, the individual capitalist has to improve productivity; an individual capitalist cannot earn more unless he sells more products. More sales require that workers employed by him manufacture more products. As a consequence, the improvement of productivity is required for creating more profits. These statements, however, are not applicable to the situation that

⁴⁶ Methodological individualism states that social explanations are ultimately reducible to individual levels. However, it does not reject the explanatory function of relational properties. This implies that methodological individualism can accept the concept of the whole, which is presupposed by relational property (Levine, Sober & Wright 1992, 111–112).

an individual capitalist gains more profits, albeit that the amount of his commodities remains the same. An alternative explanation is provided by Robert Brenner. He states,

It is only where capitalistic property relations prevail, that all of the economic actors have no choice but to adopt as their rule for reproduction the putting on the market of the product (whatever it is) at the competitive, i.e. lowest, price. It is only in a small economy that all economic actors are perpetually motivated to cut cost. It is only in such an economy that there exists a mechanism of natural selection (i.e. competition on the market) to eliminate those producers who are not efficiently cutting costs. (Brenner 1993, 34)

In sum, the market is a mechanism of natural selection: the market prefers products with lower prices. Hence, on the one hand, capitalists ought to lower the price of commodities so that they are easier to be sold. On the other hand, however, their profits have the possibility of being reduced because of decreasing prices. The way to solve this is to increase productivity: the cost of production is relatively reduced because the same amount of capital results in more products.

2.4.2 Marx's Rejection of Methodological Individualism

Central to Marx's divergence with methodological individualism is his approval of the labour theory of value. To be general, this theory states that the new value of a commodity is created through the abstract labour producing it from the means of production. Albeit 'value' refers

to a property of commodities, its definition is based on Marx's emphasis on the labour process. It is labour processes that are in consideration when Marx calculates the amount of surplus value exacted under capitalism. In this section, I will firstly clarify the difference between Marx's theory and Cohen's theory. Given this, I will argue that the combination of Marx's theory with Cohen's precludes the concept of value from the explanatory project, and Cohen does reject the concept value. Secondly, I will argue that Marx's rejection of methodological individualism is demonstrated in his explanation of the innovation of productive forces under capitalism. The development of productive forces is driven by individual capitalists' strategy. An individual capitalist improves his productivity, because he recognises that if his productivity is improved, then he will gain more profits in competition. Because capitalists in the same production sector sell their commodities on the market, the principle of market selection is consistent with Marx's theory. Nevertheless, Marx's theory is not exhausted by individuals' actions and the market mechanism. Central to his strategy is an argument that the value of a commodity regulates the condition for one capitalist to earn more profits. Because value cannot be reduced to an individual level, Marx rejects methodological individualism.

In Section 2.4.1, I have argued that Cohen's account is compatible with methodological individualism. In order to clarify the relevance of the labour theory of value to the rejection of methodological individualism, I will ask two questions at the beginning. Firstly, to what extent Cohen's theory is combined with Marx's explanation of capitalism? Secondly, what is the difference brought about by this combination? My answer is that if we try to combine Cohen's theory with Marx's theory, then the labour theory of value is abandoned. As a consequence, the compatibility with methodological individualism is accompanied with this combination.

As I have previously argued, Marx takes for granted that the substance of value is abstract labour. However, the explanatory function of value is introduced until Marx argues that the valorisation of social capital is not explained in terms of commodity circulation.

Consequently, he states that capital valorisation is ascribed to production. It is noted that in *Capital*, there is a paragraph before he makes this conclusion:

The change in value of the money which has to be transformed into capital cannot take place in the money itself ... Just as little can this change originate in the second act of circulation, the resale of the commodity ... The change must therefore take place in the commodity which is bought in the first act of circulation, $M - C$, but not in its value, for it is equivalents which are being exchanged, and the commodity is paid for as its full value.

The change can therefore originate only in the actual use-value of the commodity, i.e., in its consumption. (Marx 1990, 270)

As shown in this paragraph, Marx, firstly, ascribes the growth of capital to the consumption of commodities, and then to production. This implication is established only if the consumption of a kind of commodity *is* production. To argue this, I think it is important to clarify the temporal dimension implied by this statement.

Supposing there is an instant (T_2) since when commodities, A and B, start to circulate in a given market. The circulation of commodities presupposes their existence. Hence, statements are proposed. There is a time instant (T_1) when both A and B exist; and, T_1 is prior to T_2 , an instant demonstrating the start of commodity circulation. If there is capital accumulation, then it is argued that the growth of social capital is attributed to the consumption of A or of B.

Firstly, the increment of social capital depends neither on commodity circulation nor on commodity distribution. In terms of Marx, the increment of social capital is not ascribed to commodity circulation, because commodity circulation brings only a difference to the distribution of value. Commodity distribution, as well as commodity circulation, concerns the changing hands of given products. Consequently, it does not increase social capital. Secondly, because capital accumulation is after T_1 , it cannot be ascribed to the production of A and B,

which have already existed at T_1 . The production of A and of B must be before T_1 . Therefore, capital accumulation after T_1 is attributed to the consumption of A or of B; the consumption of them happens after T_1 . As a consequence, Marx (1990, 271) states, ‘In order to extract value out of the consumption of a commodity, our friend the money-owner must be lucky enough to find within the sphere of circulation, on the market, a commodity whose use-value possesses the peculiar property of being a source of value.’ This source, in Marx’s terms, is labour power. The consumption of labour power is labour, which manufactures products. Marx thus concludes that the increment of social capital is ascribed to the fact that production *adds* value (or new value is created by production).

Provided we have the totality of $M - C - M'$, it is argued that the consumption of a commodity presupposes the exchange of it. Now, this commodity is specified as labour power. Hence, the exchange of labour power is presupposed. As previously argued, this presupposes that there is a free labour market. The introduction of a free labour market provides a chance to combine Cohen’s theory. In Cohen’s theory, a free labour market not only characterises capitalism, but also directs his explanation of capital accumulation and of the improvement of productivity. Cohen stated that a free labour market implies a free commodity market, in which capitalists are in competition. In order to survive in competition,

capitalists have to accumulate capitals. As a consequence, capitalists have to advance their productivity, in that the development of productivity is required for capital accumulation. As argued previously, this explanation of it is compatible with methodological individualism.

This combination alters Marx's theory, because the issue concerned by Marx is excluded. To be specific, albeit Cohen explains capital accumulation in terms of capitalistic relations of production, he does not answer: *Why does labour bring about new value?* It is this question that is in Marx's consideration when he analyses and compares the value of a produced commodity with the value of the elements required to produce it. With respect to Cohen's theory, the ignorance of this question presupposes, firstly, an avoidance of the labour theory of value. For instance, in *KMTH*, his attitude towards the labour theory of value is vague:

Some of Marx's doctrine of fetishism is expressed in terms presupposing the labour theory of value. That is not the only theory which grounds value in material conditions of production, and most of the fetishism doctrine may be stated within a competing material theory, such as Sraffa's, in which value ratios are technically determined, but not by labour alone. Our exposition will not distinguish between a generally material and a specifically labour-theoretical account of value. (Cohen 2001, 116)

Another instance is his rejection of the labour theory of value. This results in the exclusion of labour processes as value production from the explanation of exploitation. In Marx's theory,

workers are exploited if their working *time* is longer than the socially necessary labour time of reproducing their labour power. This conclusion is based on Marx's account of the value of commodities, and the value relations between commodities and labour power. It presupposes that the *magnitude* of the value of a commodity is determined by the socially necessary labour time required to produce it. Nevertheless, according to Cohen, exploitation is irrelevant to labour time and thus to labour processes. The labour theory of value consists of three statements:

- (1) Socially necessary labour time determines value.
- (2) Value determines equilibrium price.
- (3) Socially necessary labour time determines equilibrium price. (Cohen 1979, 351)

The third statement is implied by the first statement and the second one. In Cohen's view, the third statement is false. As a consequence, either the first statement or the second one is false.

In either case, the labour theory of value is sunk.⁴⁷ Therefore, the labour theory of value cannot be the foundation for the charge of exploitation.

⁴⁷ As Cohen states, 'Now if (3) is false, one at least of (i) and (2) must be false. If (2) is true by definition, then (i) is false, and the labor theory of value is sunk. What Marxists therefore do is to treat (i) as true by definition-so that counterexamples to (3) cannot touch it-and then simply drop (2). But this deprives the labor theory of all substance' (1979, 351).

Exploitation in capitalism is defined by the fact that capitalists possess some products, which are not manufactured by them. Since commodities have value, it is concluded that the capitalist receives some of the value of the product created by the labourer; the labourer receives less value than the value of what he creates (Cohen 1979, 356).

Secondly, the process through which Marx formulates the question about the creation of new value by abstract labour is superfluous to the construction of Cohen's theory. By proceeding from exchange, Marx conceptualises capital, the account of which contributes to the introduction of labour in explanation; through this process, the free labour market is settled as the precondition of capital accumulation. On the contrary, in *KMTH*, the free labour market and capital accumulation are not introduced by starting from exchange. Their prelude is a functional explanation of historical materialism: relations of production are functionally explained by their correspondence with the improvement of productive forces. Following this premise, Cohen proves the correspondence of capitalism with productive forces: he depicts characteristics of capitalism, and then argues that productive forces are promoted under this situation.

Marx endorses the importance of a free labour market and of competition. His theory is also consistent with the explanation of capitalists' actions in terms of their rational choice.

Nevertheless, his explanation of surplus value cannot be reduced to the account of these elements. The socially necessary labour time required to produce a kind of commodity regulates how much extra surplus profit one capitalist could earn through improving his productivity. Because value (or socially necessary labour time) cannot be reduced to an individual level, Marx is on the opposite side of methodological individualism.

In previous sections, I clarified that Marx's analysis of surplus value, firstly, requires his account of the value of commodities. Marx states that the value of a commodity depends on two *labour processes*: the process of producing this commodity through the means of production, and the process of producing the means of production. The *socially necessary labour time* of them determines the magnitude of the value of this commodity. Secondly, Marx's account of surplus value is based on a comparison of the value of a commodity with the total value of consumed means of production and labour power. This comparison presupposes the division of labour.

Marx states that a capitalist gains more profit if his workers' productivity is above the social average level. The growth of profit is ascribed to the increment of surplus value. The increment of surplus value secured by an individual capitalist depends on his position in social production: he is in a sector of production and there are other capitalists producing the same kind of commodities as him. Additionally, his productivity has to be above the average level of social production. This means that the value of a given kind of commodity remains the same. In view of this, the sum of the value of his commodities increases with the advance of productivity. To quote Marx:

The real value of a commodity ... is not its individual value, but its social value; that is to say, its value is not measured by the labour-time that the article costs the producer in each individual case, but by the labour-time socially required for its production. (Marx 1990, 434)

In this situation, the time used to reproduce the equivalent of the labour power is reduced.

The rate of surplus value is thus increased relatively.

The composition of value includes transferred value – the value of consumed means of production in labour processes, and new value – the value created by labour in the time scale of labour processes. For instance, the value of a coat is £5, in which £2.5 are transferred value

and the remainder is new value. The socially necessary labour time of producing it is supposed to be 5 hours. Hence, the value embedded in 5 labour hours is £2.5. If a worker, who labours 10 hours each day, is paid £2, then the value of commodities in a working day is £10, where £5 is transferred value and £5 is new value. The created value consists of £2 which is quantitatively equal to the value of labour power, and £3 which is surplus value exploited by capitalists. A working day embeds the labour worth £5; each hour includes £0.5. The time taken to reproduce the value of labour power is 4 hours, and to create surplus value is 6 hours. In this situation, the rate of surplus value is 3:2.

Suppose a capitalist employs one worker and doubles the productivity of that worker. As a result, in a working day, his worker produces 4 coats. In this case, this capitalist gains more surplus value and thus more profits. The mass of the value of produced coats in a day increases to £20: £10 is the new value created by labour in 10 hours. Because the wage remains the same, the surplus value is £8. With respect to working hours, each hour contains labour worth £1; hence, the time employed to reproduce the value of labour power is 2 hours. Therefore, the time spent to create surplus value is 8 hours. It is thus argued that the relative surplus value has increased from 3:2 to 4:1. Because demand in a market is limited, this capitalist, in order to get rid of extra products, reduces the price of his commodity from £5 to

£4. Notwithstanding the reduction of the price of each coat, this capitalist gains more profits than he used to. Correspondently, other capitalists in this market lose profits.

If one individual advances his productivity, then he will gain more profits. In Marx's view this is not explained *only* by the rule of competition between individuals. Rather, this phenomenon depends on the gap between the social average level and the individual level. It presupposes that the social average level of production in a branch, as well as the value of this kind of commodity, remains the same. If productivity in this sector increases in general, then the value of commodities is reduced. As a consequence, the condition for one capitalist gaining more profits is eliminated. To this extent, the value of a kind of commodity causally influences the result of an individual's action.

Following this, Marx's explanation of the improvement of productive forces under capitalism is different from Cohen's explanation. It is true that a capitalist is driven by the intent to increase his profit which is essential to his survival in market competition.⁴⁸ Because this situation attaches to all capitalists, the innovation of productive forces under capitalism is

⁴⁸ To quote Marx: 'When an individual capitalist cheapens shirts, for instance, by increasing the productiveness of labour, he by no means necessarily aims to reduce the value of labour-power and shorten necessary labour-time in proportion to this' (Marx 1990, 433).

considered as the aggregate outcome of their actions. Nevertheless, the explanation by Marx is not exhausted by this. As I mentioned in section 2.4.1, the development of productive forces under capitalism is a macro-phenomenon. This implies that if the innovation of productive forces by capitalists is profit-motivated, then this intent is plausible to some extent. This presupposes that capitalists do earn more profits by improving their productive forces in competition. Following the approach conducted by Cohen, this is explained by the rule of market selection. According to Marx, however, the explanation of this is not exhausted by market selection, because the amount of profits gained by a capitalist is regulated by the value of this kind of commodity.

If Marx's explanation of surplus value is irreducible to the micro-level concerning only an individual's situation, then methodological individualism is not available to Marx's theory.

My argument for this idea is that the concept of value is irreducible to the concept of individual value. In *Capital*, 'social value' and 'market value' are synonyms for 'value'.⁴⁹

⁴⁹ In *Capital Volume I*, if the actual time spent to produce a commodity by one capitalist is less than the socially necessary labour time, then the individual value of this commodity is less than its social value. As Marx states: 'The individual value of these articles is now below their social value; in other words, they have cost less labour-time than the great bulk of the same article produced under the average social condition' (Marx 1990, 434). In *Capital Volume III*, Marx says: 'There is always a market value (of which more later), as distinct from the individual value of particular commodities produced by the different producers. The individual value of some of these commodities will stand below the market value (i.e. less labour-time has been required for their production than the market value expresses), the value of others above' (Marx 1991, 279).

Marx states that, firstly, the commodity owned by an individual capitalist is the sample of social value. The amount of social value is determined by socially necessary labour time. Meanwhile, Marx formulates a concept of individual value. The commodity owned by an individual capitalist represents the actual time producing it. As Jacques Bidet states,

There is the couple of 'individual values' and 'value' proper, implicit in Ricardo and explicitly addressed by Marx, in which the former denote the quantities of labour employed by each individual exchanging producer (or particular capital), while the latter, still here called 'natural value', 'market value [*Marktwert*]' or 'social value', denotes the quantity of labour necessary on average. (Bidet 2007, 140)

In Marx's view, the magnitude of social value may be determined by the labour of average productivity, as well as labour of higher or lower productivity (1991, 283-286). In some cases, the sum of individual value is equal to the social value of the entire mass. Therefore, the social value of one commodity quantitatively is the sum of individual values dividing the number of commodities. Nevertheless, there are occasions in which commodities produced under the worst or best conditions dominate the market. In these situations, the quantity of value of a commodity is above or below the average value. These situations facilitate my argument of the irreducibility of the concept of value to the concept of individual value. With respect to the example provided previously, the individual value of a capitalist's coat is 2.5 hours, whereas its social value is 5 hours. Therefore, it is reasonable to suppose that although

the time expended to produce this coat is 2.5 hours, its social value is determined by those commodities which were produced under worse conditions. Given this, it is argued that there are other capitalists and the individual values of their commodities approach social value. Given the concept of social value is reduced to the concept of individual value, then ‘social value’ and ‘individual value’ are replaceable. The attachment of this reduction to the example results in a dilemma. On the one hand, a commodity owned by this capitalist is a bearer of individual value. It means that the time taken to produce a coat in this capitalist’s, for instance B’s, factory is 2.5 hours. On the other hand, this coat is a sample of the social value of 5 hours. In this case, some capitalists produce their commodities in 5 hours. Secondly, their commodities are dominant in the market. Given the replacement of ‘social value’ with ‘individual value’, the commodity owned by B not only is a bearer of the time of producing it but also represents the actual time (5 hours) of producing another coat possessed by other capitalists such as A. Herein lies a question: If this coat is not produced in A’s factory, how could it be the sample of the individual value of his coat? One might answer that this is because A’s commodity dominates the market. I do not think this is the answer to the question. A particular commodity, which is produced in B’s factory and possessed by B, cannot be created in another factory. A commodity cannot represent both the individual value of the commodity belonging to B and the individual value of the commodity not belonging to

B. Therefore, the concept of social value, whether it is regulated by products produced under worse conditions or not, has to be beyond the boundary established by individual capitalists.⁵⁰

2.5 Conclusion

In this chapter, I argued that Marx is against methodological individualism. Firstly, I think Marx is on the side of naturalism. Naturalism is a principle that society can be studied by the methods akin to exploring the natural world. Social sciences, as well as natural sciences, answer the *why* question and provide causal explanations of phenomena. This requires me to clarify my notion of causation and of causal explanations. I maintain that if an element *A* (an event or a property) is identified as a cause, it means that *A* makes a difference to something. Correspondingly, a casual explanation does not have to follow the D-N model. In addition, an explanation is scientific if it not only identifies causal relations between events but also accounts for the deeper reality: mechanisms underlying these causal relationships. These articulations of naturalism are the same as critical realism's ideas which I will delineate in the following chapters.

⁵⁰ I think the value of a kind of commodity stands for a sector of production taken as a whole.

In Marx's *Capital*, the mechanisms he considers are capitalistic relations of production and labour processes. Firstly, Marx's analysis of surplus value presupposes capitalistic relations of production which include a capitalist–worker distinction, capitalistic ownership and competition between individuals. Secondly, labour processes are the object when Marx calculates the amount of surplus value. Based on the labour process of producing a kind of commodity through the means of production, Marx analyses the composition of the value of this commodity. It is composed of transferred value and created value. The portion between transferred value and created value represents the internal structure of this labour process.⁵¹

Given the exchange between labour power and capital, Marx compares the labour process of producing a kind of commodity with the labour processes of producing means of production and labour power. As a consequence, the surplus value equals the difference between created value and the value of labour power. Marx's account of surplus value explains the constant capital accumulation in capitalist society.

His explanation of the fact that an individual capitalist gains more profit if his productivity is above the social average level demonstrates his distance from methodological individualism.

Central to this explanation is his concept of value. The transformation of value brings a

⁵¹ The portion between the transferred value and created value also represents the level of the productive force in this production sector.

difference to the amount of extra profit that one capitalist could get. Therefore, value has an explanatory power in a causal explanation. The concept of value cannot be reduced to the concept of individual value. Socially necessary labour time therefore stands for something which is beyond individual labour processes identified in terms of individual capitalists.

In the previous chapter, I argued that capitalism provides Marx with the condition to construct in the form of value. This instrument, as I demonstrated in this chapter, is employed to explain the extract of surplus value in capitalism. It is therefore argued that capitalism provides the condition for a person to reveal its own secret. This differentiates Marx from critical realism, because the method taken by the former is based on a general ontology. In addition, this chapter argues that Marx opposes methodological individualism, in that value which is irreducible to the micro-level explains the *result* of individuals' actions. What needs to be highlighted is that in Marx's strategy, the causal power of value is not realised through its influence upon the performance of actions. I will argue that critical realism fails in its rejection of methodological individualism. Although it confirms the ontological status of social structures, critical realism states that the causal powers of social structures are realised through their influence upon agents' actions. This explanation opens up to methodological individualism. To argue for the difference between Marx's theory and critical realism, I will

first consider the transcendental arguments which are employed by critical realists to argue for their ontology.

Chapter 3 The Failure of Transcendental Arguments in Critical Realism

3.1 Introduction

Critical realists, such as Roy Bhaskar, state that critical realism systematises and supports the method Marx employs. The configuration and justification of critical realist methodology relies on critical realist ontology. As a consequence, to address the question, whether critical realism supports Marxist methods, the first step is to access critical realist ontology. The analysis of transcendental arguments by critical realism therefore plays a significant role.

They are the philosophical methods through which critical realism establishes its ontology.⁵²

In Bhaskar's view, philosophy is impossible unless it follows the Kantian road, employing the method of transcendental arguments.⁵³ However, unlike Kant, critical realists employ this method to establish ontological theories of the world. Proceeding from social activities, they

⁵² To quote Bhaskar, 'How then is a philosophy of science possible? What distinguishes philosophy from science is not its concern with a special field (e.g. language, culture or man), nor the generality of the questions it asks (whether this is conceived as a matter of degree, as in Quine, or kind, as in Lakatos), nor its investigation of (participation in or contribution to) some autonomous order of being. Rather philosophy distinguishes itself from science by its method, and more generally by the kinds of considerations and arguments it deploys, which are transcendental in Kant's sense' (2011a, 14).

⁵³ As Bhaskar states, 'If philosophy is to be possible (and I want to contend that it is in practice indispensable) then it must follow the Kantian road. But in doing so it must both avoid any commitment to the content of specific theories and recognize the conditional nature of all its results. Moreover it must reject two presuppositions which were central to Kant's own philosophical project, viz. that in any inquiry of the form 'what must be the case for ϕ to be possible?' the conclusion, X, would be a fact about us and that ϕ must invariably stand for some universal operation of mind. That is to say, it must reject the idealist and individualist cast into which Kant pressed his own inquiries' (1998, 5).

reveal what the world must be like for social activities to be possible. As a consequence, if it is argued that transcendental arguments in critical realism are problematic, then critical realist ontology, as well as the methodology based on this ontology, is in doubt.

Transcendental arguments from experiment are a spearhead in the realisation of these projects.

In *A Realist Theory of Science* (1979), Roy Bhaskar conceptualises a philosophy of science, challenging an empirical view of causal law. By using a transcendental argument from experimental activity, he states that nature is not merely constituted of events but also structured and multi-levelled. Also, he grounds causal laws in generative mechanisms and identifies mechanisms as the objects of sciences. Subsequent to the configuration of the philosophy of science, the possibility of naturalism is approved through transcendental arguments with the social activities as premises. Transcendental arguments reveal that the structure of society is similar to that of nature. Therefore, society can be scientifically investigated, just as nature can.

This chapter will analyse the transcendental arguments by Bhaskar. Foregoing this exploration, I will provide a picture of the model of transcendental arguments in section one.

My articulations in this section will act as a reference point to evaluate critical realists'

arguments. Firstly, I will outline the features of transcendental arguments. Secondly, I will depict Kant's arguments in *Critique of Pure Reason* and consider the alternatives to his arguments by anti-idealists. Tuukka Kaidesoja states that transcendental arguments are the method employed by Kant and that they bound up with Kant's transcendental idealism. As a consequence, this method cannot be employed by Bhaskar to construct an ontology and to support realism (Kaidesoja 2005, 29). I think this critique ignores that, notwithstanding their rejection of idealism, some analytical philosophers such as P. F. Strawson employ transcendental arguments in their theories. I will demonstrate that the separation of transcendental arguments from idealism brings a difference to the way of vindicating conclusions. In addition, it reminds us of the boundary of transcendental arguments. As a consequence, when analysing the transcendental arguments by critical realists, I will firstly examine the formation of their arguments, and secondly question whether transcendental arguments are available for building an ontology.

The following sections will focus on transcendental arguments in critical realism. The second section will elucidate the incoherence and ambiguities in critical realists' articulations of transcendental arguments. Firstly, critical realism argues that philosophy differs from science, since it employs transcendental arguments as its method. Therefore, transcendental arguments

are a philosophical method. Nevertheless, it also subsumes transcendental arguments under retrodution, a method utilised in scientific studies. Transcendental arguments are characterised by the abstract level of their object. Therefore, the distinction between philosophy and science is not based on their methods but on their objects, and incoherence arises from critical realism. Secondly, transcendental arguments are appropriate in the configuration of the ontology of nature and of society. The construction of the former proceeds from experiment, while the latter from social activities. A question arises here: if experiment is a social activity, why do transcendental arguments derived from experiment capture the feature of human-independent nature? Critical realism could ascribe this to the specific characteristics of the experiment. As a consequence, the argument for the ontology of society is independent of the construction of the ontology of nature. However, with respect to critical realism, the description of social reality is provided through an analogy between society and nature. Finally, critical realism does not clarify the premises of the transcendental arguments. In other words, it does not explicate what the premises stand for. If the premises of the arguments are different, then the conclusions are divergent. Therefore, the strength of the transcendental arguments is influenced.

Section Three will discuss Bhaskar's arguments. In this section, Bhaskar's transcendental argument is shown to be a circular one. Bhaskar argued that generative mechanisms, and not event regularities, are the necessary condition for experimental activity. Generative mechanisms are the foundation of causal laws. He ought to derive these conclusions from experiment through transcendental arguments. Nevertheless, his arguments presuppose the human-independence of causal laws. Based on this assumption, he states that generative mechanisms provide the real basis of causal laws. In this respect, Bhaskar interprets experimental activity. His arguments are not transcendental arguments derived from experiment, because they do not have experiment as their premise. Furthermore, Bhaskar confuses the occurrence of experimental activity with the intelligibility of experimental activity. Proceeding from the former, he attempts to reveal that the necessary condition for the occurrence of experimental activity is generative mechanisms. However, if his subject is the intelligibility of experimental activity, he could argue about the concept of generative mechanisms being required to comprehend the experiment. He cannot argue for the existence of generative mechanisms. This issue is concerned with my consideration of the boundary of transcendental arguments derived from experimentation. In the final part of this section, I will argue that transcendental arguments derived from experimentation cannot argue that the ontological condition for the occurrence of experimental activity is the existence of

generative mechanisms. However, the transcendental argument could infer that a cluster of concepts is presupposed by the meaning of this experimental activity. This cluster might consist of ‘experimental activity’, ‘event patterns’ and ‘causal law’. Nevertheless, this argument does not facilitate an ontology: it does not reveal the structure of human independent nature.

3. 2 The Model of Transcendental Arguments

A transcendental argument is a philosophical argument which proves the proposition that q is the necessary condition for the possibility of p . Given the conditional premise ‘if p then q ’ and the confirmation of the statement ‘ p ’, it is logically deduced that ‘ q ’ is true.

Firstly, statement ‘ p ’ concerns the ways of thinking or experiencing things, which include ‘naming things, or classifying them, or making true statements about reality’.⁵⁴ Given this, the object for which statement ‘ q ’ stands is transcendental; it answers how our ways of

⁵⁴ In ‘The Goal of Transcendental Arguments’, Stroud states: ‘The arguments he [Kant] considers try to prove that something is a necessary condition of our doing something we do, or justifiably or indispensably do. That gets closer to the transcendental, but it is still too general. We eat bananas and drive automobiles, for example, so there must be such things as bananas and automobiles. Is this a transcendental argument for the existence of such things? If so, we could transcendently prove the existence of those things that are required for all the practices we engage in’ (2003, 158).

thinking or experiencing are possible. As a consequence, a claim such as ‘the book is required for reading a book’ is not a transcendental argument (Stroud 2003, 158).

Furthermore, the conditional premise, ‘if p then q ’, cannot be taken for granted.

Transcendental arguments ought to deduce q by proceeding from p . In other words, the necessary connection between p and q ought to be argued and established through transcendental arguments. In ‘The Goal of Transcendental Arguments’, Barry Stroud criticises an argument which appears to be a transcendental argument. This argument consists of a conditional premise such as ‘if there were not things other than sense data, we would not be able to name things’ (Stroud 2003, 156). With the confirmation of the statement that we do name things, it is concluded that there are other things other than sense data. This argument seems to match the model of transcendental arguments. Nevertheless, its conditional premise is taken for granted.

In addition, the premise ‘ p ’ ought to be confirmed. With respect to the logical structure of the transcendental argument, only if it is valid can the conclusion be justified. Some critical realists, such as Jamie Morgan, argue that the premise ‘ p ’ cannot be indubitable. The formulation of ‘ p ’ presupposes a selection of the feature of experience. This selection is

dependent upon subjects imposing ‘a meaning frame of what is a significant feature’ (Morgan 2004, 311). As a consequence, the premise ‘*p*’ is essentially associated with interpretation and disputation. It cannot be confirmed. I do not think this idea implies the unnecessaryness of confirming the premise *p*. Firstly, in transcendental arguments, the confirmation of the premise *p* is logically required for vindicating the conclusion *q*. This *logical* requirement is irrelevant to the relationship between the content of a statement and the object of this statement. Secondly, if it is impossible to confirm the premise *p*, it is then concluded that the truth of this statement is in suspicion. This does not alter the *logical* structure of transcendental arguments. Neither does it falsify the fact that in *logic*, the confirmation of *p* is required for proving the statement *p*. Rather, given a scholar’s employment of transcendental arguments, he ought to provide more arguments for his premises, so that the reliability of his conclusion is improved.

Transcendental arguments were firstly employed by Kant and then continued within analytical philosophy.⁵⁵ Though both tend to construct synthetic a priori propositions, the latter gets rid of Kant’s idealism.

⁴ Förster says: ‘Given these problems, it is hardly surprising that none of the basic ingredients of Kant’s solution to the transcendental Hauptfrage has survived critical discussion within the analytic philosophy of our time. The ideal of a constitution of experience in Kant’s idealistic sense has become a non-issue; and with it, the belief in a transcendental self, a non-empirical “I” which constitutes nature from disconnected impressions but which itself

Through transcendental arguments, Kant attempts to answer a question: how is knowledge in general possible?⁵⁶ His project starts with a self-evident notion that experience must be of an object. Kant states that the subject does not experience things in themselves but merely representations. Spatial and temporal sensibility receives representations (Ameriks 1999, 463). Following this, representations are connected and ordered through concepts which are combined in a judgement. The combination of representations, firstly, ‘can be executed only by the subject itself, since it is an act of its self-activity’ (Kant 1999, 245). Secondly, it requires a unity, the ground of which is self-consciousness. Self-consciousness, which is also named by Kant as transcendental apperception, produces the representation “I think”. The representation “I think” ‘must be able to accompany all others and ... in all consciousness is one and the same’ (Kant 1999, 246-247). It also facilitates the construction of the object of cognition, because all representations are unified in self-consciousness. As Kant states,

The synthetic unity of consciousness is therefore an objective condition of all cognition, not merely something I myself need in order to cognize an object but rather something

is never to be met with in experience, has gone by the board. What is more surprising is that, in spite of these rejections of Kant’s fundamental assumptions, a revival of transcendental reasoning has taken place within the analytic tradition, and has demanded attention for well over two decades now’ (1989, 8).

⁵⁶ As Stroud states: ‘We want to understand not just how it is possible for us to think or know this or that particular thing, given that we already think or know something else; we want to understand how human thought or knowledge in general is possible. That certainly was Kant’s interest in our ways of thinking’ (2000, 84).

under which every institution must stand in order to become an object for me, since in any other way, and without this synthesis, the manifold would not be united in one consciousness. (Kant 1999, 249)

Kant's transcendental arguments underline two issues. The one is the boundary of transcendental arguments, and the other is the justification of transcendental arguments. The former concerns the question of how far transcendental arguments go. In *Critique of Pure Reason*, Kant does not provide an account of things in themselves, although things in themselves are presupposed by experience. This makes sense with respect to Kant's idea of metaphysics. Firstly, 'metaphysical enquiry employs the same cognitive power as is employed in common sense and scientific judgements about the world of experience' (Gardner 1999, 14). As a consequence, metaphysics could be as scientific as mathematics and natural sciences. Secondly, if metaphysics is scientific, then it ought to provide synthetic a priori judgements. Hence, transcendental arguments consist of synthetic a priori statements. These explain the preclusion of things in themselves from Kant's arguments. Kant explicates,

If the objects with which our cognition has to do were things in themselves, then we would not be able to have any a priori concepts of them at all ... if we take them from the object *b* ... then our concepts would be merely empirical and not a priori concepts. (Kant 1999, 243)

The second issue is that of the justification of the transcendental arguments. With respect to my prior articulation of the transcendental arguments, firstly, Kant's arguments match the logical form of transcendental arguments. He states that if experience is possible, then self-consciousness must be the case for this possibility. Given there is experience, his account of self-consciousness is approved. Secondly, the connection between experience and self-consciousness is established through transcendental arguments rather than being assumed. As Kant states,

It is impossible for me to go beyond the concepts of an object a priori without a special clue which is to be found outside of this concept ... the proof does not show ... that the given concept (e.g. of that which happens) leads directly to another concept (that of cause) ... rather it shows that experience itself, hence the object of experience would be impossible without such a connection. The proof, therefore, had to indicate at the same time the possibility of achieving synthetically and a priori a certain cognition of things which is not contained in the concept of them. (Kant 1999, 665)

In addition, Kant's philosophy addresses the question of how is synthetic a priori knowledge possible. Because both metaphysics and sciences formulate synthetic a priori knowledge, addressing this question justifies metaphysics. As a consequence, the possibility of synthetic a priori knowledge is argued by the transcendental arguments which are constituted by synthetic a priori statements. Therefore, 'the problem of metaphysics is ultimately a matter of reason's relation to itself, the route to its solution ... must also be reflexive. That is, reason

must examine itself' (Gardner 1999, 15). As Rudiger Bubner states, the knowledge called transcendental takes as its object, together with the general condition of knowledge, the condition of its own origin, functioning and possibility (1975, 462). Hence, the possibility of transcendental arguments cannot appeal to any other metaphysical presuppositions.⁵⁷ Rather, in Kant's theory, transcendental arguments reveal their own foundations by proceeding from a self-evident premise. To be specific, Kant argues that the transcendental self is the necessary condition of the experience through transcendental arguments. Simultaneously, the transcendental self enables transcendental arguments, but it is not a higher principle directing how the whole argument proceeds.

Kant is characterised as an adherent of transcendental idealism. Firstly, he states that the object of cognition is constructed by the subject. Secondly, his theory informs that things in themselves are unknown. Critics who are sympathetic to his transcendental arguments attempt to break the linkage of this argument with transcendental self and relate it to things in

⁵⁷ Rudiger Bubner says: 'The proof of the legitimacy of understanding, which is the task of a transcendental deduction, does not follow from a higher principle which permits insight beyond our understanding. Since the legitimation of empirical knowledge does not rest upon a dogmatic principle, we must conclude that the expectation of a strict and logically compelling deduction is groundless...Criticism is by definition something different from the construction of deductive systems. Historically speaking, this misunderstanding was already present in Kant's lifetime. Since Reinhold, or since Fichte at least, an urgent need has been felt to complete or improve the basis of the deduction....' (1975, 466). Therefore, the transcendental self is not presumed at the beginning of Kant's arguments. It does not act as a reason to derive one proposition from another.

themselves. For instance, Quassim Cassam (1987, 366-367) ascribes Kant's leaning toward idealism to his idea that appearances necessarily fit into the connected whole of human knowledge. Proceeding from appearances, Kant introduces self-consciousness.

Self-consciousness requires experience to display a certain order. Appearances, the objects of experience, display 'a certain degree of order and interconnectedness' (Cassam 1987, 366).

This statement does not imply that the order displayed in appearances is constructed by a subject. It thus does not imply that the object of experience is constructed by a subject. As

Cassam states, although appearances do perform an order, 'it just so happens that

appearances do ... provide a basis for the unity of consciousness ... it is plain that

appearances might not have done so, and there is no guarantee that they will continue' (1987,

369). This, however, is not accepted by Kant, because he approves the necessary coherence

between the knowledge system and the order of appearances. This necessary coherence is

absent if the order of appearances is contingent. Therefore, in Kant's theory, the order

displayed in appearances cannot count on things in themselves. Otherwise,

There would be no way of avoiding the consequence that it is merely accidental that empirical imagination should be in a position to function. Thus, appearances cannot be things in themselves, and their interconnectedness is itself produced a priori by the imagination. (Cassam 1987, 367)

Following this argument, Cassam concludes that if the idea that appearances must fit into the knowledge system is disposed of, then transcendental arguments are separated from idealism.

As a replacement, firstly, transcendental arguments are compatible with the concept that appearances accidentally fit into the system of knowledge. Secondly, the foundation of the order of appearance is suspended. Therefore, the statement, ‘the order of appearance is grounded in things in themselves’, cannot be judged to be false.⁵⁸

This conclusion is weaker than that provided by Kant. Because the transcendental self is excluded from arguments, transcendental arguments are not strengthened by their revealing of the element which underwrites the possibility of transcendental arguments. Therefore, transcendental arguments ‘can only establish their conclusion by showing that alternatives to

⁵⁸ In ‘Self-Directed Transcendental Arguments’, Quassim Cassam (2003) makes a distinction between world-directed transcendental arguments and self-directed ones: the former tell us something about the nature of the world where thinking and experiencing take place; the latter start with some cognitive achievements, and tell us about the cognitive faculties of the thinking or knowing itself. Kant's argument is classified as the latter. Cassam asks ‘Are self-directed transcendental arguments bound with the (?) subject origin thesis?’, viz. are categories combining experience data subjectively originated? And he holds that if the notion, which claims that categories such as space and time arise from things in themselves, does not lead to a dilemma, there is no need to follow transcendental idealism. He thinks that the conceptualist realist provides this possibility; it shows that it would not be incoherent or impractical to think of the necessary conditions, which are pursued by self-directed transcendental arguments, as objectively necessary. Though there is no evidence that self-directed transcendental arguments presuppose conceptualist realism, the latter at least provides an alternative to idealism, supporting that self-directed transcendental arguments are not bound with idealism. It is enough for transcendental arguments to provide a premise, while the justification of this premise is still at issue.

these conclusions are incoherent' (Förster 1989, 10). The defence of a conclusion relies on proof by contradiction. In other words, a conclusion is endorsed by demonstrating the powerlessness of the attack on it. For instance, P. F Strawson argues that 'we have the idea of a single spatio-temporal system of material things', and the condition of use of this scheme is 'the unquestioning acceptance of particular-identity in at least some case of non-continuous observation' (1959, 35). Following this, Strawson argues that skeptics who challenge his conclusion will be in a dilemma. Skeptics accept the spatio-temporal scheme, whereas they refuse to ascribe this system to particular-identity. As a consequence, firstly, they argue that the spatial system we have in every observation is independent of others. Secondly, the item in one system cannot be identical to the item in another system. However, Strawson states,

For such a doubt makes sense only if the two systems are not independent, if they are parts, in some way related, of a single system which includes them both. But the condition of having such a system is precisely the condition that there should be satisfiable and commonly satisfied criteria for the identity of at least some items in one sub-system with some items in the other. (Strawson 1959, 35)

Therefore, Strawson argues that skeptics reject the condition which makes their doubt possible.

However, can we derive the notion that objective particulars continue to exist unperceived from what we think of them? Stroud does not think so. He states that transcendental arguments are bound up with the confirmation of propositions. We could only confirm a proposition in a world which we believe in and to some extent understand (Stroud 2003, 164). The confirmation of propositions is associated with subjective elements. The confirmation of the proposition that objective particulars exist implies that we do believe that objective particulars exist.

Now the general picture of transcendental arguments is clarified. Firstly, they stick to a logical form: if p then q; given p, q is confirmed. Secondly, the conditional premise is developed through transcendental arguments. Transcendental arguments establish the relation between p and q. To quote Stroud (2003, 158), 'We do not have a priori conception of something which we then seek a special kind of argument to prove'. Furthermore, the justification of transcendental arguments needs complements: the conclusions are either guaranteed through revealing something argues for the possibility of the argument, or approved through demonstrating the incoherence of the results from its alternatives. In addition, scholars ought to be cautious about the separation between transcendental arguments and idealism. Addressing the question 'how far do transcendental arguments go'

requires a scholar to consider not only the relationship between propositions constituting arguments but also his capability of realising his project. This articulation provides us with a reference point to review critical realism's transcendental arguments. Firstly, it requires us to review the process of transcendental arguments given by critical realists. Secondly, it requires us to consider whether transcendental arguments are an approach to establish a critical realist ontology.

3.3 The Articulation of Transcendental Arguments in Critical Realism:

Ambiguity and Incoherence

In critical realism, transcendental arguments are employed to build up a critical realist ontology. This ontology, in general, states that the world, including nature and society, is ordered and stratified. It consists not only of events but also of mechanisms. Transcendental arguments in critical realism are driven by a question: what must be the cause for social activity X to be possible? The conclusion is that the world must be so-and-so for the possibility of X.⁵⁹ In addition, critical realism explicates the relationship between science and philosophy, and between ontology and epistemology. Firstly, 'philosophy treats the self-same world as sciences' (Bhaskar 2009, 8). Nevertheless, philosophy is neither identical

⁵⁹ Bhaskar states: 'Philosophy treats the self-same world as the sciences, but transcendently, i.e. from the perspective of what such practices presuppose about the world' (Bhaskar 2009, 8).

to science nor replaceable by science. Philosophy is the underlabour of science. To quote

Bhaskar,

Philosophy, indeed, can neither anticipate the results nor guarantee the success of a naturalistic science of society; what it can do is to specify the (ontological) conditions that make, and the (epistemological) conditions that must be satisfied, for such a project to be possible. (Bhaskar 1998, 3)

Secondly, critical realism underlines ontology. For instance, Bhaskar condemns modern philosophy for its epistemic fallacy which maintains that ‘being can always be analysed in terms of our knowledge of being’ (2008, 26). As a consequence, ontology is reduced to epistemology. On the contrary, Bhaskar argues for the irreducibility of these two fields to each other. The distinction between ontology and epistemology corresponds to the difference between intransitive dimension and transitive dimension. The former is the object of knowledge. It is human-independent and provides the foundation of the objectivity of knowledge. The latter stands for the process of producing knowledge. Critical realism approves the relativity of knowledge, in that agents are limited. Agents tend to choose and cognise a subject matter from a particular perspective. Secondly, knowledge is historically and socially produced. This notion grounds the distortion of knowledge in social reality. Therefore, the critique and revival of given knowledge gives rise to a critique of society.

However, if we go further, it then reveals that the articulations of transcendental arguments by critical realism are incoherent. Firstly, the distinction between philosophy and social sciences, between transcendental arguments and scientific method, is not so explicit. Bhaskar states that philosophy and sciences share the same object.⁶⁰ This leaves a question: how is philosophy distinguished from sciences? The answer provided by critical realism is that ‘philosophy distinguishes itself from science by its method, and more generally by the kinds of considerations and arguments it deploys, which are transcendental in Kant’s sense’ (Bhaskar 2011a, 14). Therefore, philosophy is characterised by transcendental arguments. It implies that transcendental arguments are distinct from the scientific method. Nevertheless, this implication is rejected by critical realists. Both Bhaskar and Tony Lawson state that transcendental arguments are a species of retrodution which reveals explanatory structures from surface effects.⁶¹ They are distinguished by a higher level of abstraction. This leaves a

⁶⁰ As Bhaskar (2011a, 14) states: ‘What distinguishes philosophy from science is not its concern with a special field (e.g. language, culture or man), nor the generality of the questions it asks (whether this is conceived as a matter of degree, as in Quine, or kind, as in Lakatos), nor its investigation of (participation in or contribution to) some autonomous order of being.’

⁶¹ To quote Bhaskar: ‘If this is done, and a transcendental enquiry is identified as an enquiry into the conditions of the possibilty of ?? , where ?? is some especially significant, central or pervasive feature of our experience, then it must be recognised that... (ii) generalised transcendental reflection of this kind is in turn merely a species of the wider genus of retroductive argument characteristic ... of scientific activity generally and is not distinguished by any social logic or innate certainty of its own’ (2009, 7). See also Lawson 2003, 34.

question: how could we identify the level of abstraction of transcendental arguments to be higher than other retroductive arguments? Critical realism states that the subject matter of transcendental arguments is more general and more abstract. For instance, Lawson states that transcendental arguments start from general features of experience.⁶² Hence, it contributes to ontological theories. Retroduction, however, proceeds from the concept of specific phenomena. It facilitates a substantive explanation of the phenomena. As a consequence, with respect to the argument method per se, transcendental arguments are the same as other retroductive arguments. Another example is Bhaskar's concept of scientific transcendental arguments. In *The Possibility of Naturalism*, Bhaskar distinguishes scientific transcendental arguments from philosophical transcendental arguments. The former are employed to identify specific social structures required by specific social actions. They proceed from a specific social activity conceptualised in experience. Through conceptual analysis, scientific transcendental arguments capture the real definitions of social structures. Scientific transcendental arguments are distinguished from the philosophical ones in terms of their

⁶² Lawson says: 'I have already noted that the premises of the sorts of (ontological) analyses to which I refer usually express certain fairly generalised features of experience. The form of reasoning that takes us from widespread features of experience (including here conceptions of generalised human practices, or of aspects of them) to their grounds or conditions of possibility, is the transcendental argument. The transcendental argument (or transcendental 'deduction') is thus clearly a special case of the retroductive argument, where the latter moves from conceptions of specific phenomena at any one level to hypotheses about their underlying conditions or causes' (Lawson 2003, 34).

objects. In scientific transcendental arguments, there are ‘two levels of reality (social structures and their effects). In philosophical transcendental arguments, however, there is just one, viz. that investigated by science itself’ (Bhaskar 1998, 55). Hence, transcendental arguments are not only a method for dealing with philosophical problems, but also a method for studying society. A contradiction arises from critical realism. On the one hand, it argues that philosophy is characterised by its special method: transcendental arguments. On the other hand, however, the method for building philosophy is also applicable to empirical studies; philosophy and empirical studies are differentiated in terms of their subject matter. In addition, it is noticed that, in critical realism, transcendental arguments are employed to argue that the ontological foundation of causal law are generative mechanisms but not event patterns. Therefore, transcendental arguments uphold the ontological irreducibility of generative mechanisms to events. This irreducibility is the presupposition of the critical realists’ account of sciences. Sciences, including the natural and social ones, retroduce the operational mode of mechanisms through event conjunctions. Since we have argued that the argument in itself is available to both ontology and sciences, it is inferred that this argument not only holds for the reality of the object of sciences, but is also a scientific method for exploring the object. Therefore, this argument is universally applicable.

Critical realism is on the side of naturalism. This standpoint is approved by the affinity between society and nature. In critical realism, this affinity is supported by the philosophy of science and the philosophy of social sciences respectively. In *A Realist Theory of Science*, first published in 1975, Bhaskar states that natural generative mechanisms are the foundation of causal laws. This statement is formulated through transcendental arguments derived from experiment. The articulation of natural sciences by Bhaskar is a point of reference based on which he conceptualises as the philosophy of social sciences in *The Possibility of Naturalism*. In this book, he states that social structures are similar to natural generative mechanisms, and so are social actions to natural events. Social structures are ontologically irreducible to social actions. Social sciences are possible, because the operation of social structures is as regular as the operation of natural mechanisms. What distinguishes social sciences from natural sciences is their deployment of hermeneutics. This distinctiveness is ascribed to the characteristics of society. Unlike nature, society exists and persists only by virtue of human agency. Hence, it is argued that the articulation of social sciences in critical realism is based on the ontology of society. Corresponding to the philosophy of science, critical realism states that the ontology of society is configured through transcendental arguments derived from social activities, the essential of which is intentional agency. As Bhaskar states,

A transcendental argument from intentional agency (a sound, yet anti-naturalistically acceptable, premise)... establishes the relative autonomy, sui generis reality and temporal pre-existence of society, as its necessary means and medium. (Bhaskar 2009, 81-82)

It leaves herein several questions: is experimental activity not social activity? Is experimental activity not bound up with human intentional agency? Why do transcendental arguments from experiment penetrate human-independent generative mechanisms? Why do transcendental arguments derived from human agency reveal the dependence of social structures upon agents? Critical realism could address these questions by virtue of the particularities of the experiment. In this case, experiment is a specific social activity. It is characterised by its particularities. By proceeding from the common of all social activities, such as intentional agency, critical realism infers the features of social structures: relative autonomy, sui generis reality and temporal pre-existence. Through the particularities of experiment, critical realists have an insight into specific structures which are human-independent. This strategy, firstly, requires us to examine the critical realists' transcendental arguments. In the following section, I will argue that critical realism's transcendental arguments are problematic. Secondly, this strategy implies that the formulation of the ontology of society and that of nature are independent. The similarities and differences between society and nature are posterior to the configuration of ontological

theories. Bhaskar seems to acknowledge this. In *Scientific Realism and Human Emancipation*,

Bhaskar states,

Transcendental realism does not licence the simple-minded transapplication of results derived from reflection on the conditions of the natural sciences to the social sphere. Rather it is only in virtue of an independent analysis, such as will be aired in a moment, that a paramorphic relationship between the natural and the human sciences can be set up capable of vindicating the idea that there are (or at least may be) knowable structures at work in the human domain partly analogous but irreducible to (although dependent upon) those discovered in nature, whereupon the material causality of social forms and the efficient causality of beliefs emerge as conditions of intentional agency and discursive thought respectively. Thus any answer to the question ‘how is a scientific sociology (etc.), if it is, possible?’ will unfurl in at least two stages: (1) an independent derivation of an adequate account of science, based on an accepted and acceptable paradigm; and (2) an independent analysis of the subject matter of the social (psychological, etc.) sciences designed to ascertain the extent to which social (etc.) knowledge can (and if it can, actually does) fall under the generic, or at least paradigm-based, account of science. (Bhaskar 2009, 79-80)

Nevertheless, if we consider the argument provided by critical realists, such independent

analysis does not carry on. In the same book, Bhaskar says,

The T.M.S.A. [transformational model of social activity], which may be motivated either by transcendental argument from intentional agency or by immanent critique of the antinomies of social theory, may be regarded as an attempt to articulate the formal conditions for substantive object-constitution in the social sciences via a definition of what must be the case for a *sui generis* science of social objects to be possible... Its central features are the definition of human intentional agency as criterial for the social, as distinct from the purely natural sphere; and the characterisation of the onto-logical

structure of human activity or praxis as essentially transformative or poietic, as consisting in the transformation of pre-given material (natural and social) causes by efficient (intentional) human agency. The criterion for differentiating the social from the purely natural material causes is given by their property that, although necessarily pre-given to any particular agent and a condition for every intentional act, they exist and persist only in virtue of human agency. (Bhaskar 2009, 82)

This articulation informs that the differentiation of the social and the natural relies on the notion that human intentional agency is the criterion of the social. If the social is defined in terms of its relationship with agency, and the difference between nature and society is derived from this definition, then there is no need to provide transcendental arguments which prove the pre-existence of social structures and the relationship of social structures with agency. As evidence, it is noticed that, in *The Possibility of Naturalism*, the transformational model of social activities is irrelevant to the transcendental arguments. Rather, it is conceptualised through a direct comparison between society and nature.

The ambiguities of the discourse of transcendental arguments by the critical realists are also demonstrated by their account of the premises of transcendental arguments. To be specific, the critical realists do not clarify what the premises in transcendental arguments stand for. Take Bhaskar's theory for example; he is against the epistemic fallacy which dissolves the question about the reality of the world into the issue of what we could know about the

world.⁶³ The rejection of the epistemic fallacy requires the distinction between two kinds of statements: the first is ‘social activity is so-and-so’, and the second is ‘we believe that social activity is so-and-so’. The former is on social activity, and the latter is on the concepts of social activity. Similarly, the statement, ‘society and nature are so-and-so’, is distinguished from the statement that ‘society and nature are conceptualised as so-and-so’. The ontology provided by transcendental arguments is of being. It therefore cannot be reduced to the statements of agents’ concepts of being. For instance, Lawson states that critical realism studies the nature of being directly, rather than knowledge and its presumptions about being.⁶⁴ By comparison, Quine’s theory reveals the ontological commitments of the language users, and thus restricts us to the analysis of language expressing knowledge (Lawson 2004). He does not provide an ontology. On the contrary, the transcendental arguments in critical realism concentrate on social activities. Thanks to them, critical realism bypasses knowledge and goes into the structure of existence. Given critical realism attempts to reveal the necessary condition of social activities, it argues that the premise of transcendental arguments stands for the features of social activities and the conclusion that it is of being.

⁶³ To quote Bhaskar: ‘The epistemic fallacy is a fallacy, i.e. that statements about being cannot be reduced to or analysed in terms of statements about knowledge’ (2009, 31).

⁶⁴ Lawson (2004) distinguishes a study of being from an exploration of the ontological notions presumed by knowledge. The former is ontology. The latter is called ‘ontographology’ or ‘ontopolology’, where ‘graphy’ means (the art of) writing or describing or representing, and ‘opology’ stands for ontological presuppositions (incorporating ontological premises and ontological posits).

However, somewhere else, Bhaskar (1998, 5) argues that ‘philosophical investigation is into the necessary condition for social activities as conceptualised in experience’. This situation presupposes that, firstly, an agent has an experience. Secondly, his experience combines the conceptualisation of social activities. Finally, the premises of transcendental arguments are an abstraction of the agents’ concepts of activities. Consequently, the premise of a transcendental argument is not ‘social activity is so-and-so’. It is replaced with ‘the concept of social activity combined with the agents’ experience is so-and-so’. This comprehension of the premise of transcendental arguments argues for the openness of the transcendental arguments provided by critical realists. Firstly, ‘If the general form of a philosophical investigation is into the necessary conditions for social activities as conceptualized in experience’, Bhaskar says, ‘then it must be recognized that both the activity and its conceptualization may be historically transient’ (1998, 5). Secondly, critical realists who employ transcendental arguments to construct philosophy are influenced by their experience.⁶⁵ Bhaskar states that the historical experience of philosophers affects their choice of topics and their axiological standpoints.

⁶⁵ Bhaskar says: ‘For philosophy, as understood here, does not dispense with the need for, but rather iteratively depends upon extra-philosophical axiological standpoints and interests, such as might be inclined by a particular class, gender, occupation, generational etc. experience and excited by involvement in a particular activity (e.g. science or a popular campaign) or concern about a specific issue (e.g. personal or species survival). Such

In addition, critical realists state that some notions are identified as the premises of transcendental arguments because they are held by the opponents of critical realism. As Lawson (1997a, 50-51) states, ‘The premises of transcendental arguments will be descriptions of practices given prominence by influential, or potentially influential, science-oriented philosophies’. In this way, critical realists support their ontological theory through uncovering the internal inconsistency of the given theories. If their opponents agree that activities are so-and-so, then they ought to maintain a critical realist ontology. Otherwise, their theories are internally incoherent. This notion of the premises of transcendental arguments is linked with the immanent critique. In terms of critical realism, new knowledge is produced through solving the contradictions in a priori theories.

standpoints are necessary: (i) logically, for the transformation of the conditional propositions of philosophy into subjectively warranted beliefs about the world; (ii) biographically, for the agent’s engagement in the particular discourse in question; and (iii) historically, for the emergence, development and persistence of those discourses (as ‘language- games’). Patently, such commitments can no more be justified by philosophy, or by philosophy alone, than boots can climb mountains; they must instead be grounded in the wider horizon of historical experience. Moreover the philosopher will have to draw upon this experience in appraising the weight to be placed on arguments from science as against arguments from other historically materialised practices (magic, religion, etc.) where the activities and/or their presuppositions are incompatible. Clearly at this point we appear to have reached an immanent barrier to immanent critique’ (Bhaskar 2009, 12).

To summarise, three standpoints of the premises of transcendental arguments are discovered in critical realism. The first is that the premise is a statement of the features of social activities. Secondly, the premises refer to the concepts of social activities involved in the agents' experience. Thirdly, critical realism states that the premises they choose are the ideas held by their opponents such as empiricists. The tension in critical realism arises from the divergence between these standpoints. According to the first concept, the form of transcendental arguments would be:

Premise 1: the social activity X is so-and-so.

Premise 2: if X is so, the world must be such-and-such.

Conclusion: the world is such-and-such.

The conclusion of this argument is very strong. It attempts to state how the world really is, rather than depicting people's thoughts about this world. Its justification is underpinned by a strong premise, the confirmation of which depends on an assertion – activity X is no less than what is described. In this case, transcendental arguments start from the statements standing for activities, and infer their ontological preconditions. Bhaskar (2008, 26) states: 'Philosophical ontology asks what the world must be like for science to be possible; and its

premises are generally recognized scientific activities. Its method is transcendental; its premise science; its conclusion the object of our present investigation'.⁶⁶

However, if it is held that the premises of transcendental arguments stand for agents' concepts contained in their experience, the conclusions would be weakened. Firstly, critical realism states that agents' concepts of social activities could be modified, since social activities and the historical experience of social activities are in transformation. As a consequence, critical realist philosophy is claimed to be open to self-reflection and critique (Bhaskar 2009, 9). It leaves a question herein: how could critical realism be modified? The critical realist ontology is constructed through transcendental arguments. It is a general description of the world: (1) generative mechanisms are the foundation of causal law; (2) the world consists of three domains; it is not constituted only by events; (3) the world is ordered and stratified; (4) mechanisms at the higher level emerge from but cannot be reduced to mechanisms at the lower level; (5) the world is an open system. Despite the claim that these concepts are fallible in principle, I do not think critical realism allows the falsification of

⁶⁶ In *Scientific Realism and Human Emancipation*, Bhaskar also mentions that the philosophy of science, which studies the ontological presupposition of activities, considers practical activities as its premises. He states, 'I use "ontology" ("ontological", etc.) to refer to (1) propositions in the general (philosophical) theory of being, or what pertains to it, ontology 1 and, within that rubric, to (2) propositions in the transcendental theory constituted by reflection on the presuppositions of scientific activities, or what pertains to it, ontology 2' (Bhaskar 2009, 24).

them in practice, since critical realism is defined in terms of its ontology. Secondly, if the statement ‘social activities conceptualised in agents’ experience is so-and-so’ is confirmed, it then implies that agents do have the concept that social activities are so-and-so. Following this, what transcendental arguments establish is the linkage of agents’ concepts of social activities with the reality of the world. This strategy meets with some problems. Firstly, a suspicion is aroused: does every agent have the same concept of social activities? If the answer of this question is ‘no’, then the reliability of transcendental arguments is in doubt. To reinforce their arguments, critical realists could argue that agents could not have any other concepts. Or that the concepts implied in agents’ experience can be no more than those captured by critical realism. Therefore, we could not but confirm the premise, because we cannot imagine that an alternative concept might be right. As a consequence, the premises of transcendental arguments are replaced with the statement: ‘we cannot but think social activity X is so-and-so’. Therefore, it is easy for one to infer that agents’ concepts of social activities imply that they should consider the world as stratified and ordered. Nevertheless, this conclusion does not focus on the reality of the world. As a consequence, if critical realism attempts to conceptualise an ontology, it then ought to provide articulations of the relationship between the reality of the world and the agent’s concepts.

If we accept the third standpoint, maintaining that transcendental arguments start from the opinions held by others, it then follows that transcendental arguments will be even weaker. Transcendental arguments could then only attack other theories, instead of proving a critical realist ontology. Take Bhaskar's critique of empiricism for example; empiricists propose that causal laws are reduced to the pattern of events, the formation of which depends on the experiment. Proceeding from this notion of experiment, however, Bhaskar infers that generative mechanisms, which are independent of events, are the ground for causal laws. So the notions held by empiricists are internally incoherent. This argument does not justify Bhaskar's ontology. The confirmation of the premises of transcendental arguments means that empiricists do think the experiment is so-and-so. This situation is relevant neither to the features of the experiment nor to the agents' conceptualisation of the experiment in experience. It implies only that some agents have certain ideas regarding the experiment. As a consequence, it poses the questions: Why do critical realists choose those concepts as premises? What is the job of transcendental arguments? Jamie Morgan, a critical realist, answers these questions. The selection of premises depends on academic dispute. It identifies some significant concepts which are fallible but shared by competing views. Transcendental arguments tend to show how some propositions must follow these concepts. The argument derived from experiment, for example, which demonstrates that 'the world is stratified', must

follow from some conceptions of experiment. Its conclusion, however, remains uncertain, for its premise is fallible. Besides, it does not seek to answer what the world really is, but rather to contribute to the understanding of some concepts. In Morgan's view, it is plausible to propose that 'the nature of external reality enables us to comprehend that reality – the adequately capturing some aspect of it is necessary to the adequacy of argument' (2004, 323).

3. 4 Bhaskar's Transcendental Arguments from Experiment

3.4.1 The Configuration of the Transcendental Arguments by Bhaskar

Bhaskar provides an example of transcendental arguments in *A Realist Theory of Science*, where he asks 'what the world must be like for experiment to be possible?'⁶⁷ He concludes that for the possibility of experiment, the foundation of causal laws must be generative mechanisms and not event regularities.

Bhaskar's ontology is established through transcendental arguments derived from sciences. In

Bhaskar's view, the possibility of science is troubled by a paradox: human-dependent

⁶⁷ To quote Bhaskar, 'On the contrary, philosophy treats the self-same world as the sciences, but transcendently, i.e. from the perspective of what such practices presuppose about the world ... On this approach, then, philosophy is dependent upon the form of scientific practices, but irreducible to (although ultimately constrained by) the content of scientific beliefs. Thus philosophy can mark the condition that if experimental activity is to be possible, the world must be structured and open' (2009, 8).

knowledge is a knowledge of human-independent things (Bhaskar 2008, 11). To solve this problem, Bhaskar makes a distinction between intransitive dimension and transitive dimension. The former refers to the objects of natural sciences. It is beyond the influence of activities. As Bhaskar states,

The intransitive objects of knowledge are in general invariant to our knowledge of them: they are the real things and structures, mechanisms and processes, events and possibilities of the world; and for the most part they are quite independent of us ... They are the intransitive, science-independent, objects of scientific discovery and investigation. (Bhaskar 2008, 12)

The latter includes the ‘the raw materials of science—the artificial objects fashioned into items of knowledge by the science of the day’ (Bhaskar 2008, 11). These materials are utilised by scientists to renovate and correct the knowledge of intransitive objects.

Transcendental arguments, in Bhaskar’s view, are capable of exposing the structure of the intransitive dimension. Therefore, it facilitates the establishment of an ontology.⁶⁸

Transcendental arguments are driven by a question: what must the world be like for sciences

⁶⁸ Bhaskar says, ‘If we cannot imagine a science without transitive objects, can we imagine a science without intransitive ones? If the answer to this question is “no”, then a philosophical study of the intransitive objects of science becomes possible. The answer to the transcendental question “what must the world be like for science to be possible?” deserves the name of ontology. And in showing that the objects of science are intransitive (in this sense) and of a certain kind, viz. structures not events, it is my intention to furnish the new philosophy of science with an ontology’ (2008, 13).

to be possible? Addressing this question involves two steps. Firstly, transcendental arguments proceed from sense-perception. It argues that the intelligibility of sense-perception presupposes that the intransitive dimension includes events, because events are the object of observation.⁶⁹ Secondly, transcendental arguments are applied to reveal the necessary condition of experimental activities. The intelligibility of experimental activity presupposes that the intransitive field does not include only events.⁷⁰ The intransitive dimension also contains generative mechanisms. By proceeding from experimental activity, the transcendental arguments prove that the generative mechanisms are the foundation of causal laws.

After establishing an ontology, Bhaskar points out the dilemma which arises from regularity determinism. Regularity determinism claims that ‘for every event y there is an event x or set of events $x_1 \dots x_n$ such that x or $x_1 \dots x_n$ and y are regularly conjoined under some set of descriptions’ (Bhaskar 2008, 59). Like critical realism, it argues that an experiment establishes a closed system and provides some conditions for the constant conjunction of

⁶⁹ To quote Bhaskar, ‘The intelligibility of sense-perception presupposes the intransitivity of the object perceived. For it is in the independent occurrence or existence of such objects that the meaning of ‘perception’, and the epistemic significance of perception, lies. Among such objects are events, which must thus be categorically independent of experiences’ (2008, 21).

⁷⁰ Bhaskar says, ‘The intelligibility of experimental activity presupposes not just the intransitivity but the structured character of the objects investigated under experimental conditions’ (2008, 23).

events. However, it holds that causal law is grounded in constantly relating events. This notion, according to Bhaskar, can work only if three conditions are satisfied. Firstly, a closure is actually isolated from external influences or the constancy of those influences. The aim of science is to discover the pattern of events and to capture the conditions of the occurrence of this pattern. It is possible that scientists have not captured sufficient conditions. Therefore, the supposed sequence of events does not perform through the experiment. In this case, regularity determinists hold that the conditions were incompletely described previously (Bhaskar 2008, 64-65). Secondly, entities involved in the system must be considered as atoms. This strategy excludes the situation in which, notwithstanding the same external conditions, diverse internal states of entities might produce different events (Bhaskar 2008, 65). Thirdly, the states of the system must be capable of being represented as an additive function of the states of the individual components of the system (Bhaskar 2008, 66). Nonetheless, these concepts give rise to paradoxes. They challenge a Humean view of cognition. This view grounds the justification of the cognitive act in the discovery of empirical invariance. According to regularity determinism, event *a* could be identified as the cause of event *b*, albeit it is not followed by *b*.⁷¹ Furthermore, it assumes that a complete description of the

⁷¹ As Bhaskar states, ‘But for the empiricist committed to regularity determinism to do so involves an enormous risk. For it means he must be prepared to snap the Humean link that ties the justified performance of cognitive acts such as the ascription of causes to a knowledge of empirical invariances; and to say “yes I know *a* is not invariably followed by *b*, yet *a* caused *b* here”’ (2008, 67).

conditions will support the constant conjunction of events. Therefore, when facing counter instances, we ought to complement the description of the conditions. This means an increase on the elements contributing to the pattern of events. Following this logic, a closed system will embrace everything, and a complete statement of causality will be a statement of this world, which implies that there will be no distinction between causes and conditions (Bhaskar 2008, 67). In addition, individuals are reduced to atoms, thus we cannot tell individuals from their circumstances (Bhaskar 2008, 67). Finally, the notion of an open system will be invalid. Unlike a closed system, an open system is defined in terms of the absence of the constant conjunction between event type *a* and event type *b*. However, the defence of event regularities derived from counter instances finally results in the concept of the world as a closed system. Hence, the open system does not exist. In addition, the reduction of entities to atoms means that the entities' actions would be explained by the interaction of atoms. This implies that individuals are obliged to act in some way. Hence, it is impossible for them to produce other events, and an open system is impossible (Bhaskar 2008, 68).

Now it is clarified that the configuration of Bhaskar's ontology has two steps. Transcendental arguments derived from experimental activity argue for the reality of generative mechanisms.

This argument is then complemented by revealing the incoherence of regularity determinism.

The structure of this argument is summarised as follows:

(1) If scientific practice, which has characteristics $A_1, A_2 \dots A_N$, is possible, then the world must be like $P_1, P_2 \dots P_N$

(2) scientific activity has characters $(A_1, A_2 \dots A_N)$

(3) The ontology in (1) is proved

(4) The competing philosophies of science that agree that scientific practice has the characteristics mentioned above have their own ontology: thus the world must be like $Q_1, Q_2 \dots Q_N$.

(5) The rival philosophies lead to paradoxes, thus their theories are incoherent.

With respect to my previous articulations of transcendental arguments, let us analyse steps (1)

– (4). The first proposition is a conditional premise of the relationship between experiment

and intransitive world. It ought to be constructed through transcendental arguments. In

Bhaskar's theory, the essential feature of the experiment is its production of event patterns.

To quote Bhaskar (2008, 23), 'An experiment is necessary precisely to the extent that the

pattern of events forthcoming under experimental conditions would not be forthcoming

without it'. Given this, the next question is: what must be the case for producing event

patterns through the experiment? Addressing this question leads to the conclusion that generative mechanisms are the necessary condition for producing the sequence of events through the experiment. Nevertheless, Bhaskar does not follow this approach. The identification of the feature of the experiment is followed incidentally by a definition of causal law.⁷² Bhaskar states that event patterns are produced by experimental activity. As a consequence, event patterns cannot be the foundation of causal laws. Causal laws thus are grounded in generative mechanisms, a sort of structure independent of human beings.

Following this argument, Bhaskar provides an account of the experiment. An event pattern is the outcome of the operation of one generative mechanism. Because nature is an open system, the operation of one mechanism is interfered with by other mechanisms. An experiment excludes those interferences through establishing a closed system. Therefore, it produces a sequence of events which is employed to discover the operation mode of generative mechanisms.

⁷² Bhaskar states: 'The intelligibility of experimental activity presupposes not just the intransitivity but the structured character of the objects investigated under experimental conditions. Let me once again focus on the empiricist's favourite case, viz. causal laws, leaving aside for the moment such other objects of investigation as structures and atomic constitutions. A causal law is analysed in empiricist ontology as a constant conjunction of events perceived (or perceptions). Now an experiment is necessary precisely to the extent that the pattern of events forthcoming under experimental conditions would not be forthcoming without it. *Thus in an experiment we are a causal agent of the sequence of events, but not of the causal law which the sequence of events, because it has been produced under experimental conditions, enables us to identify*' (2008, 23; emphasis added).

This articulation of the experiment presupposes a notion of causal law: causal law must be human-independent. This notion relies on Bhaskar's standpoint that 'knowledge is of things that are not produced by men at all ... None of these objects of knowledge depend upon human activity. If men ceased to exist, sound would continue to travel ...' (Bhaskar 2008, 11). As a consequence, Bhaskar's arguments rest on his notion of science: scientific knowledge is a knowledge of human-independent causal laws. If causal laws are absent, science is impossible and there is no demand for the experiment. Hence, the actual logic of Bhaskar's argument is:

(1) Premise: science is of causal laws or things that are constant and independent of men

Without these causal laws/things, there is no science

Premise: there is science

Conclusion: causal law/things do exist and are independent of human beings.

(2) Following this, Bhaskar makes an account of experiment:

Chaotic events in everyday life do not help to display causal laws, thus the experiment is required because it establishes a closed system and thus produces the patterns of events contributing to identifying causal laws.

This throws a shadow over Bhaskar's theory. The ontology is not conceptualised by Bhaskar through transcendental arguments derived from the experiment. Firstly, his arguments do not proceed from statements of the experiment. Rather, its premise is a notion of causal law, which is rejected by Hume. Secondly, transcendental arguments derived from experiment are superfluous for his plan. Causal laws are assumed to be human-independent. This assumption is sufficient for distinguishing the generative mechanism from the sequence of events. Causal laws are independent of agents, whereas event conjunctions are produced by experimental activities. Therefore, event regularities cannot be the foundation of causal laws. As a replacement, it is plausible to lay the ground of causal laws in generative mechanisms. Thirdly, Bhaskar's arguments are circular. If his arguments are transcendental, then the ontological status of the generative mechanism ought to be derived from the feature of the experiment. Nevertheless, Bhaskar does not provide arguments for the necessary connection between generative mechanisms and experiment. Instead, the ontological status of generative mechanisms is a premise with respect to which Bhaskar conceptualises experiment.

3.4.2 Where Does Experimental Activity Lead?

In the previous section, I argued for the failure of Bhaskar's transcendental arguments.

Bhaskar states that generative mechanisms are the foundation of causal laws, and that

generative mechanisms are irreducible to event patterns. He attempts to infer this conclusion through transcendental arguments derived from experimental activity. Nevertheless, his arguments are circular. The ontological status of the generative mechanisms is not derived from the enquiry of the possibility of experiment. Rather, they rely on an assumption: causal laws are human-independent. Therefore, generative mechanisms, and not the constant conjunction of events, are the foundation of causal laws. Given the approval of generative mechanisms, Bhaskar formulates an understanding of the experimental activity. This section will argue that it is impossible to capture the structure of an intransitive dimension through transcendental arguments derived from experiment, in that transcendental arguments derived from experimental activity cannot go beyond the human-dependent dimension. As a consequence, it is disputed that the ontological status of generative mechanisms is supported through transcendental arguments derived from experiment. However, transcendental arguments facilitate revealing the concepts presupposed by the intelligibility of the experiment.

Before arguing this in detail, I think there is a need to identify the ambiguity in Bhaskar's theory. It resides in the meaning of the question: 'what must be the case for the possibility of

the experiment?'. For Bhaskar, this is a question, on some occasions, regarding the

occurrence of experiment. He states,

The status of propositions in ontology may thus be described by the following formula: It is not necessary that science occurs. But given that it does, it is necessary that the world is a certain way. It is contingent that the world is such that science is possible. And, given that it is possible, it is contingent upon the satisfaction of certain social conditions that science in fact occurs. But given that science does or could occur, the world must be a certain way. Thus, the transcendental realist asserts, that the world is structured and differentiated can be established by philosophical argument; though the particular structures it contains and the ways in which it is differentiated are matters for substantive scientific investigation. (Bhaskar 2008, 19)

According to this statement, Bhaskar uncovers the necessary condition of the happening of experimental activity. However, there are many occasions on which Bhaskar explicates that his enquiry is of the intelligibility of experimental activity. For instance, in *A Realist Theory of Science*, Bhaskar states, 'Transcendental realism argues that it is necessary to assume for the intelligibility of science that the order discovered in nature exists independently of men, i.e. of human activity in general' (2008, 17).⁷³

⁷³ Bhaskar also states, 'In showing that the intelligibility of experimental activity entails that the objects of scientific knowledge, in so far as they are causal laws, are intransitive I have already succeeded in the first of these aims' (2008, 27).

I do not think the occurrence of experimental activity and the intelligibility of experimental activity are the same issue. The former relates the cause of an activity and the condition of its happening. The latter is a matter of its understanding. For instance, there is a ball on a tree. Jason jumps and touches the ball. His action, touching the ball, would have not happened if the tree was higher. Given the cause of an action being defined as something bringing difference to this action, it is concluded that in this case the height of the tree causally influences Jason's action.⁷⁴ The height of the tree, however, does not imply the intelligibility of Jason's action. Neither does one's acknowledgement of the height of the tree imply his understanding of Jason's action. Jason's touching the ball could be motivated by the belief that touching the ball on the tree brings good luck.

In the following paragraphs, I will firstly demonstrate that generative mechanisms cannot be identified as the necessary conditions of experimental activity through transcendental arguments. In terms of my previous articulation of transcendental arguments, the statements of a human-independent world cannot be taken for granted, rather being derived from the statements of experimental activity. The necessary connection between experimental activities and external world is configured through transcendental arguments. As a

⁷⁴ This definition of cause is maintained by Bhaskar. In *The Possibility of Naturalism*, Bhaskar states that reason explanation is causal explanation, because reasons bring difference to actions.

consequence, I think the transition from experimental activity to external world presupposes intermediates, so that the linkage between experimental activity and external world is established through the enquiry of the possibility of experiment. This raises the question of what media is introduced in the arguments. With respect to Bhaskar's articulation of experiment: 'An experiment is necessary precisely to the extent that the pattern of events forthcoming under experimental conditions would not be forthcoming without it' (2008, 23). Therefore, in Bhaskar's strategy, the elements which could act as the media in transcendental arguments are events produced under experimental conditions. Hence, the former question is specified as two enquiries: firstly, do transcendental arguments derived from experimental activity go beyond the pattern of events? Secondly, do transcendental arguments argue that the necessary condition of the occurrence of experimental activity is human-independent? Addressing these questions requires us to consider the relationship between events produced through the experiment and experimental activities. In order to make my argument clearer, let us consider an example: Jason, who does an experiment, moves his arm, dips litmus paper into one kind of acid, and changes the colour of paper.

How is experimental activity connected with the sequence of events? I will address this question by considering the ontological status of activities. Generally, there are two

standpoints on this issue: one is represented by Donald Davidson, and the other by Alvin I Goldman (Moya 1990, 32-35). With respect to the example I provide, Davidson states that there is only one particular action, notwithstanding the four descriptions provided in terms of its effects. In Goldman's view, however, there are four particular actions.

As soon as Bhaskar accepts Davidson's idea, it becomes clear that his project cannot be realised. For Davidson, actions are events, though not all events are actions. Hence, on the one hand, the general term 'experiment' is a description of the effects brought about by events; on the other hand, it is based, on a summary of the similarities among different effects, in events being unrepeatable. The result in an experimental context, according to Bhaskar, is the production of the sequence of events, and the identification of a causal law. The question 'how is the experiment possible?' therefore leads to another one: 'how could the production of the sequence of events be possible?' Nevertheless, it is doubtful that the ontological distinction between events and causal law could be derived from an answer to this question: Kant grounds the pattern displayed through events in categories of the understanding through a transcendental argument.

Another strategy is to follow Goldman, who differentiates act type from act token. The former is also called act property, such as dipping paper into acid and doing an experiment. It can be exemplified by an agent. An agent is considered to perform an act in the event that his exemplification is under voluntary control and is purposeful.⁷⁵ The latter, as Goldman puts it, are ““individual acts”, i.e., acts that have a particular agent, that occur at a particular time (or during a stretch of time), and that serve as terms in causal relations’ (1971, 770). Jason’s changing the colour of the paper is therefore an act token, an exemplifying of the act type changing the colour of a paper (Goldman 1970, 10). One agent can exemplify many act properties, and thus is involved with many act tokens. These act tokens are unified in irreflexive ‘by’-relations, which means that one act token is causally generated by a previous one: Jason’s dipping litmus paper into acid is done by moving his arm. Causally-generated relation is not causation. Though it is easy to think that Jason’s dipping litmus paper into acid causes him changing the colour of the paper, what Jason’s dipping paper causes is the change

⁷⁵ ‘Admittedly, there is a difference between exemplifying a property, in general, and performing an act. This difference, I believe, is to be analyzed in terms of what causes the exemplifying of the property. If I sneeze as a result of the usual causes, I exemplify the property of sneezing, but I do not perform an act. If sneezing is under my voluntary control, however, and if I exercise this control by sneezing on purpose, then I have performed an act of sneezing’ (Goldman 1971, 769).

in the paper: the colour of paper becoming red.⁷⁶ Hence, in Jason's case, the referred act

tokens and events could be summarised as follows:

Act-tokens	Events
Jason doing the experiment	The happening of the experiment
Jason's changing the colour of the litmus paper	The colour of the paper changing
Jason's dipping the litmus paper into acid	The paper's dipping into acid
Jason's moving his arm	Jason's arm moving

First, if Bhaskar's subject is merely an act type, then Bhaskar's scheme, the configuring of an ontology through transcendental arguments derived from experiment, is not realised. An experiment, Bhaskar says, 'is necessary precisely to the extent that the pattern of events forthcoming under experimental conditions would not be forthcoming without it' (2008, 23).

This concept is an abstraction of the effect brought about by the experiment. In Goldman's view, an act type cannot have causal efficacy unless it is exemplified by an agent.⁷⁷

⁷⁶ With reference to Davis's articulation: 'It is easy to make of thinking that Sam's praising Sue caused his making her happy; but this is a mistake. What Sam's praising Sue caused is the change in Sue, the event of her becoming happy. This event was not Sam's action at all' (1979, 31).

⁷⁷ Goldman mentions that 'it isn't weight in general that causes the roof's collapse, just some specific value of this magnitude, e.g., two tons. Thus, it seems to be the property of weighing two tons that is the causal relatum. This can't be quite right either, though, since properties or universals per se don't have causal efficacy. It is only the having of a certain weight by an object that can bring about an effect. So what causes the roof's collapse is the ice's weighing two tons: a property-exemplification.' (1979, 264).

Therefore, Bhaskar's concept is based on the outcomes of experimental act tokens done by individual agents. It is the act tokens that are in consideration when we attempt to reveal the necessary condition of experimental activities.

Now let us consider the act tokens. With respect to Jason's case, Bhaskar's concept of experiment is specified as the idea that Jason's experimental activity produces the sequence of events, and this sequence of events is absent without his experiment. Correspondingly, our examination of Bhaskar's project is reified as the address of the question: can transcendental arguments ground Jason's experiment in a human-independent world? The relationship between Jason doing the experiment and the events conjunction produced by him is thus in consideration. Firstly, it is identified that the pattern of events concerned with Jason's case is 'Jason's arm moving – the litmus paper's dipping into acid – the colour of the paper changing'. Though Bhaskar does not clarify this, the pattern of events precludes the happening of experiment.⁷⁸ Secondly, the linking between the pattern of events and Jason doing the experiment ought to be constructed, because events are the media relating the

⁷⁸ According to Bhaskar, the conjunction of events contributes to the identification of causal law. In an experimental context, those events might do this do not include the happening of experiment. The constant conjunctures of events are empirically observed invariance (Potter & Lopez 1997, 10-11). In Jason's case, what we observe are his arm moving, litmus paper's dipping into acid and the colour of this paper changing. We cannot empirically observe the happening of the experiment.

experiment to the external world. Thirdly, and with respect to the diagram above, the happening of the experiment and other act tokens facilitate the correlation between Jason doing the experiment and the events produced.

In order to realise his plan, Bhaskar ought to surpass the act-token chain: a chain consisting of only act tokens.⁷⁹ The act token chain is an approach to human independent nature. Rather, it leads to a regression of mechanisms possessed by agents.

The next step is to consider the action-causal chain.⁸⁰ Before articulating this topic at length, I will clarify the relationship between the intrinsic event and its corresponding action.

‘Actions (or some of them, at least) can be paired with intrinsic events...if such an action occurs, it is conceptually or metaphysically implicit that the intrinsic event does’, which means that an intrinsic event is logically entailed by its corresponding action: in Jason’s case, his arm moving is the intrinsic event to him moving his arm (Ruben 2003, 44). Despite this

⁷⁹ With reference to the concept of action chain: ‘Action chains have only actions on them, and non-actional events ... Each action on the action chain is done by doing its predecessor, if it has one ... The by-relation, as I have repeatedly said, that relates these actions, is not a causal chain’ (Ruben 2003, 51).

⁸⁰ An action-causal chain ‘isn’t just any old chain of events, but rather a chain with exactly one action on it (by stipulation), and with all the events which are its cause? (if any, but I shan’t keep repeating this qualification) and effects on it, and all of whose links are causal links. As is clear in my example, many of the events on the action-causal chain will be intrinsic to other of the agent’s actions. But it is the events intrinsic to those actions which are on the action-causal chain, not the actions themselves’ (Ruben 2003, 50).

relationship, the intrinsic event, firstly, is not the effect of its action. For one thing, their relation is a priori, while the effect of an action is known a posteriori; for another, the event intrinsic to an action is not contingent but necessary for that action (Ruben 2003, 48).

Secondly, it is not identical with its corresponding action, because they may have different subjects or gain different properties.⁸¹ On this concept, the pattern of events is: Jason's arm moving – litmus paper's dipping into acid – the colour of the paper changing; the action-causal chain is: Jason's moving his arm – litmus paper's dipping into acid – the colour of the paper changing.

The question aroused here is: does the action-causal chain act as the joint between the occurrence of the experiment and the sequence of events? The answer is 'no'. Firstly, it is Jason's moving arm, but not him doing the experiment, that brings about the pattern of events. It is not the necessary condition for them. This conclusion is incoherent with the assumptions about experiment by Bhaskar, since Bhaskar's argument proceeds from the notion that experimental activity is required for the production of an event pattern. Secondly, we cannot construct the linkage between Jason doing the experiment and the event pattern through the

⁸¹ Ruben (2003, 46) states: 'First, the action and its intrinsic event may have different subjects. The Queen's death happens only to her; my killing of her concerns or involves her and me ... my second argument for their non-identity focuses on properties that one but not the other has. My killing of the Queen is punishable; her death is not. Her death is tragic, but not dastardly; my killing of her is dastardly but not tragic.'

happening of experiment. For one thing, the happening of the experiment is not identical with Jason doing the experiment. Consequently, supposing it is in connection with the pattern of events, the place of the happening of the experiment cannot be replaced with Jason doing the experiment.

With respect to the action-causal chain, what we could argue is that the pattern of events does not causally influence Jason doing the experiment. Supposing that Jason doing the experiment is causally influenced by the event pattern, it implies a causal link between Jason moving his arm and him doing the experiment. This relation is not supported by Goldman. Hence, if there is something that is an ontologically necessary condition for the experiment, then it must be different from the pattern of events produced by the act-tokens. However, it does not imply that (1) the experiment does have the ontologically necessary conditions; (2) the necessary condition for the experiment is human-independent; (3) the causal law is different from the pattern of events; (4) the experiment requires causal law and causal law is human-independent; (5) the ontological distinction between causal law and the pattern of events is required by the experiment. Consequently, Bhaskar's conclusion can be underpinned only on the presumption that causal law is not only the necessary condition for experiment, but also human-independent. In the event of this, nevertheless, there is no need

for a transcendental argument, which aims to show that casual law is not only ontologically different from the pattern of events but also required by the experiment, for the conclusion is taken for granted. Furthermore, this analysis highlights the importance to individual acts; act properties cannot produce events unless they are exemplified by agents. In other words, it is the individual, such as Jason, who exemplifies the act properties and produces particular patterns of events under particular circumstances. Following this, the subject matter of the argument is the individual's exemplifications of the experiment rather than the experiment in general, which means Bhaskar's question 'what must be the case for the experiment to be possible?' ought to be revised. As a result, the discussion of the possibility of doing the experiment does not contribute to the conclusion that causal law is based on generative mechanisms rather than events.

Nevertheless, it might be argued that the distinction between the concept of causal law and the event patterns is essential for the comprehension of the experiment. In other words, the intelligibility of the experiment presupposes that the concept of causal law is different from the concept of event patterns. According to the statements mentioned above, an intrinsic event is conceptually necessary for an action. One action and its intrinsic event are necessarily bound up with each other, since the meaning or the true description of this action

entails the happening of the event: ‘dipping litmus paper into acid’ consists in the description of ‘someone brings about litmus paper’s dipping into acid’. Similarly, doing the experiment and the happening of the experiment are conceptually necessarily related. In spite of this, their relation is different from the one between ‘dipping litmus paper’ and ‘litmus paper’s dipping’. To characterise this difference, let us compare them with each other:⁸²

(6) someone does an experiment

An experiment takes place

(7) someone dips litmus paper into acid

Dipping litmus paper into acid

The first proposition of each group states an action, and the second describes what happens following this action. There is a necessary connection between actions and the intrinsic events they imply: the happening of an event is necessary for identifying an action. In spite of this similarity, their difference is significant. With respect to group (7), the description of its intrinsic event is not sufficient for identifying this action, for the happening of the event is not bound up with human beings. ‘Jason dips paper into acid’ means ‘Jason brings about the paper’s dipping by moving his arm’. The description of bodily movement is thus required for identifying this action, in that it is crucial for identifying the performance of the action. This explanation gives rise to a further question: ‘what do you mean by saying that Jason moves

⁸² Carlos J.Moya (1990, 38-39) expresses this idea in *The Philosophy of Action*.

his arm?’ This approach thus initiates infinite enquiries. However, in group (6), the happening of the experiment is not only necessary but also sufficient for identifying Jason’s action of doing the experiment. Firstly, it implies this action. Thus, there is no need to introduce a description of bodily movement to depict this action. Secondly, it involves the comprehension of this: the experiment cannot be reduced to the description of the body movements on which it depends to be performed.⁸³

Three conclusions are expressed in the particular relationship between doing an experiment and the happening of an experiment. Firstly, a scientific experiment is a special action, the meaning of which is beyond those act tokens on which it depends to be performed. Secondly, the happening of an experiment, Jason’s experiment for instance, is different from other events in his experimental context. Its occurrence requires a corresponding action. Thirdly, it

⁸³ Carlos J. Moya classifies this special action as a meaningful action. Meaningful actions seem to be specifically human. ‘First of all, even if each particular meaningful action can be given a true description in terms of bodily movements, meaningful actions, as a type of actions, do not consist merely of the performing of bodily movements, for a non-human animal whose behaviour could receive that same true description in terms of bodily movements would not be performing that meaningful action. Secondly, how to perform them is something that can be explained by linguistic means, such as the rules of elections or of auctions, even if it is not necessary that are so learnt. This suggests that mastery of certain concepts is involved in their performance. They require learning and socialization. And, thirdly, their performance is subject to rules and norms: besides being able to signal for a turn or to bid, one can do those things rightly or wrongly. Doing them can be right or wrong (“that was not the right moment to bid”), and they can be performed rightly or wrongly (“and, besides that, your bid was stupidly high”). They can be evaluated and criticized from several points of view’ (Moya 1999, 40).

throws light on the introduction of the concept of causal law. For one thing, the sequence of events is not enough to interpret the happening of the experiment. For another, the happening of an experiment cannot be interpreted as doing the experiment, because it tells us nothing about this action. As a consequence, the concept of causal law might be introduced. It could provide more information about the action.⁸⁴ To summarise: if we want to understand the experiment, then it is required to distinguish the concepts of ‘pattern of events’ and ‘happening of the experiment’. Because we do want to understand experiment, we require this concept, which might be ‘causal law’. Hence, it might be concluded that the concept of causal law, different from the concept of the production of the pattern of events, is required for the intelligibility of a scientific experiment. This entails a conceptual framework, a structure which consists of the concept of experiment, the concept of causal law and the pattern of events. The meaning of the experiment could be understood with reference to this structure. Because of this, these three concepts are inter-dependent.

⁸⁴ This is not the only or necessary method for providing new information. According to the definition of experiment ‘Science aims to understand the world of experience. One puts its ideas to the test through experiment, where one manipulates phenomena in such a way that answers can be given to specific questions’ (Ruse 2005, 281). In my opinion, the particularity of the experiment manifests that it is fettered by humans. Rethink the experiment is always associated with scientists — the disciplines they engage in, their hypotheses and experiment design. And experiment which is defined as a scientific method and subjects to rule and norms is a production historically and socially. If we want to identify an action as an experiment, we normally make use of those rules and norms. Hence, even without the concept of casual law, it is possible to understand the experiment.

Despite the introduction of the concept of causal law, this argument for the intelligibility of the experiment cannot prove that causal law is human-independent. The conceptual distinction between causal law and the pattern of events does not correspond to their self-sufficiency and ontological distinction. If the meaning of the concept ‘causal law’ depends on the existence of causal laws, then the referential theory of meaning is implied.⁸⁵ Hence, there is no need to make a transcendental argument for the possibility of the intelligibility of the experiment. As a replacement, it is easy to declare that the intelligibility of the concept of the experiment relies on the existence of this action. Following this, the intelligibility of experimental activities does not rely on the concept cluster which is constituted by ‘the experiment’. Hence, for the possibility of this transcendental argument, it ought not to lay the ground of intelligibility in self-sufficient objects which are referred as by concepts.

⁸⁵ Meaning referential theory holds that ‘linguistic expressions have the meanings they do because they stand for things; what they mean is what they stand for. On this view, words are like labels; they are symbols that represent, designate, name, denote or refer to items in the world’ (Lycan 2008, 3).

3.5 Conclusion

Bhaskar's transcendental arguments, firstly, are circular. Bhaskar asks what the world must be like for experimental activity to be possible. With respect to my articulation of transcendental arguments in section 3.2, it is obvious that the premises of the transcendental arguments can be no more than the conceptions of experimental activity. Bhaskar would have derived his notions of generative mechanisms by proceeding from these premises. This way, he argues that generative mechanisms are the necessary condition for the experimental activity. Nevertheless, his concepts of generative mechanisms are irrelevant to experimental activity. Rather, they are supported by his standpoint of causal laws: causal laws are human-independent. Given this notion of generative mechanisms, he provides an account of experiments. As a consequence, the concepts of generative mechanisms which ought to be conclusions in transcendental arguments actually act as premises.

Secondly, both Bhaskar does not clarify the premises of their transcendental arguments and confuses the occurrence of experimental activity with the intelligibility of experimental activity. As a consequence, it is unclear if the premises of the transcendental arguments are the premises of the occurrence of experimental activity or of the meaning of this activity. His theory is an example of my general articulations of critical realism in section 3.3: critical

realism does not clarify what the premises of transcendental arguments are about. I outlined three answers to this question: firstly, critical realism states that premises are statements of the features of social activities; secondly, premises are abstracts of the concepts embedded in the agents' experience; the third is that premises are important philosophical notions. The ambiguities in the premises of the transcendental arguments bring difficulty to critical realism. For instance, critical realism attempts to construct an ontology. By proceeding from the notions held by some philosophers, however, what critical realism reveals is the incoherence in philosophical theories. As a consequence, the conclusions of the arguments are different by starting from divergent premises. This sparks another issue: how far transcendental arguments go? Are transcendental arguments available to construct an ontology?

Bhaskar does not answer these questions. This is firstly expressed in that he does not realise that if he proceed from different premises, the conclusions they gain are diverse. Secondly, this issue is not in his consideration. In section 3.4.2, I discuss this issue. Bhaskar's description of experiment provides two elements: experimental activity and the events produced by the experiment. Given these two elements, I demonstrate that transcendental arguments cannot identify generative mechanisms as the necessary condition of the occurrence of experimental activity, because they cannot go beyond the experimental context

and penetrate the human-independent world. Secondly, if the subject is the intelligibility of experimental activity, then the transcendental arguments could reveal a cluster of concepts presupposed by the meaning of the experimental activity. This cluster is constituted by the concepts of event patterns and causal laws, which are distinguished. It could hardly be said that transcendental arguments facilitate ontology; they only uncover concepts. In order to construct an ontology, the linkage between concepts and the world ought to be established. For the possibility of transcendental arguments, concepts and world cannot be connected through meaning referential theory. Otherwise, there is no need to reveal the concepts required by the intelligibility of experimental activity, because the meaning of the experimental activity relies on its existence. It is noticed that in his later thought, Bhaskar (1997) attribute concepts and ideas an ontological status. In this way, concepts and world are connected; an ontology is constructed. Nevertheless, Bhaskar becomes an idealist.

Finally, in section 3.2, I point out that critical realism fails in distinguishing philosophy from sciences. On the one hand, critical realism states that transcendental arguments are a philosophical method. Although philosophy shares the same object with sciences, it is characterised by a specific method: transcendental arguments. Therefore, transcendental arguments, as a method, are different from the scientific method. On the other hand, however,

critical realism states that transcendental arguments are a species of retrodution, a method employed in scientific studies. Transcendental arguments are distinctive with other retroductive methods because its objects are more abstract. As a consequence, with respect to the method per se, transcendental arguments are the same as scientific method. Firstly, my articulation reveals the incoherence internal to critical realism. Secondly, it demonstrates that in terms of critical realism, there is a method which could be generally used. The application of this method is relevant neither to the concrete objects scholars confront with nor to the specific social context scholars locate in. This method, by proceeding from some general features of activities, argues for the reality of the objects of scientific studies: mechanisms or structures. It thus lays the ground of causal laws in mechanisms and argues for the possibility of sciences. This method facilitates scientists to recognise particular structures by proceeding from specific features of activities or events. As a consequence, this method per se not only argues for the existence of objects but also is available to study objects. The application of it is unconditional.

In this chapter, I demonstrate that transcendental arguments in critical realism are problematic. Since this method is employed to construct critical realist ontology, it is concluded that this ontology is vulnerable. Therefore, the critical realist method is at risk, in

that it is based on critical realist ontology. In addition, I reveal that the application of the critical realist method is unconditional. This distinguishes the critical realist method from Marx's method. In Chapter One, I demonstrate that capitalism provides Marx with conditions to employ and construct his method. As a consequence, the application of Marx's method presupposes a historical background; it is not unconditional. In the following chapter, I will firstly demonstrate critical realist ontology. Based on this ontology, critical realists formulate their theories of social sciences.

Chapter 4 Bhaskar's Philosophy of Social Sciences

4.1 Introduction

The critical realist theory of social sciences is a response to developments in sociological studies in the late 20th century. One is the flourishing of interpretative approaches, and the other, the revival of methodological individualism. In the 1960s, Parsonian normative functionalism came under fire. Central to functionalist theory is the concept of norms.

Functionalism explains social actions by demonstrating that they satisfy the requirements of a whole society. It, however, leaves two questions: the first is 'how do norms and institutions emerge in the first place?'; the second is 'how do norms and values direct an actor's actions?'

Methodological individualism is applied to answering the first question. Rational choice theory, for instance, explains the emergence of social order and social cooperation in terms of individual actions. Its explanation of individual actions is based on the instrumental conception of rationality: to act rationally is to select the best means to achieve given ends.

The second question is addressed through interpretative approaches, in that 'the norm and rules do not simply exist abstractly for the actor and cannot be converted into actions. Rather on this view, norms and values must first be specified and thus interpreted in the concrete action situation' (Joas & Knöbl 2011, 123).

Critical realism argues for the scientific method of studying society. Therefore, it endorses naturalism. Nevertheless, it rejects methodological individualism. Firstly, it states that hermeneutics is an approach to understanding a society. Although hermeneutics is required in social study, critical realists argue that a society can be scientifically explained. Secondly, critical realism states that methodological individualism is not a plausible method through which society can be explored.

This chapter will focus on Bhaskar's philosophy of social sciences in *The Possibility of Naturalism*. Bhaskar plays an essential role in the formation of critical realism. His intelligent career has three stages: critical realism, dialectical critical realism and the philosophy of meta-reality. His every turn not only attracts new adherents but also initiates debates in critical realism. With respect to the theme of the thesis, the comparison between Marxism and critical realism, I think the clarification of Bhaskar's philosophy of social sciences is important. Firstly, I will not consider Bhaskar's dialectic, because central to my thesis is the methodology of social study. Critical realist methodology is mainly based on Bhaskar's philosophy of social science. For instance, Tony Lawson underlines the concept of closed systems and open systems, and argues that the method of mainstream economics is not appropriate to the economy (Chapter Five). Margaret Archer reinforces Bhaskar's notion that

social structures pre-exist social actions, and develops a morphogenetic approach (Chapter Five). Secondly, my attention is on Bhaskar's early thought: critical realism. Bhaskar formulates the philosophy of social science in this early stage. Although he formulates dialectical critical realism and the philosophy of meta-reality later, this does not change his philosophy of social sciences. Rather, this philosophy is incorporated into a bigger theoretical system. In addition, I will provide a detailed analysis of Bhaskar's theory in *The Possibility of Naturalism* in which he fully developed a general picture of social reality which is agreed to by the majority of critical realists. Based on this picture, he demonstrates his concepts of social sciences.

I will clarify firstly Bhaskar's ontology of society and then his account of social sciences, as he maintains that the features of objects make the scientific study of these objects possible.

Section 4.2 demonstrates that Bhaskar holds the notion that reasons cause actions. As a consequence, reason explanations are causal explanations. This is inconsistent with the hermeneutic standpoint that reasons only contribute to the intelligibility of actions. It also implies that social scientists can provide causal explanations in social exploration. The next section (Section 4.3) focuses on Bhaskar's ontology of society in which he states that social structures are similar to generative mechanisms; their operations are regular. A society,

however, is different from nature, in that its existence depends on social actions and on concepts of social actions. Given the clarification of Bhaskar's ontology, I will articulate his theory of social sciences in Section 4.4. Firstly, because social structures operate regularly, social scientists make statements about causal laws applicable to social structures. Secondly, the particularity of a society contributes to distinguishing social explanation from natural sciences. Because a society is concept- and activity-dependent, it is argued that the establishment of closed systems in social exploration is impossible. Further, inasmuch as conceptual aspects are included in a social reality, Bhaskar shows tolerance towards hermeneutics. His theory is compatible with Giddens' structuration theory.

4.2 Reasons and Actions

Bhaskar holds that reasons cause actions, and reason explanations are causal ones. This standpoint is different from hermeneutics, which states that reasons concern only the intelligibility of actions. Bhaskar's argument concerns his views on actions, reasons and the relations between them.

4.2.1 Actions

Bhaskar's argument on actions presupposes act-types, albeit his notions on this issue are confusing. He makes a distinction between agents' activities and types that activities belong to. The former relates to reasons, while the latter concerns meaning. To quote Bhaskar,

For the meaning of an action such as 'chopping wood' or 'saying "hullo"', that is, its correct identification as an act of *a particular type* in a particular language and culture, is always and in principle independent of the intention with which it is on some particular occasion, by some particular agent, performed. (Bhaskar 1998, 93; emphasis added)

Bhaskar's views on action include the accounts of both Davidson and Goldman. For Davidson, in the *process* of flipping the switch, turning on the light, illuminating the room and unintentionally alerting a prowler, for example, an individual 'need not have done four things, but only one, of which four descriptions have been given' with reference to the effects of this action (Davidson 2001, 4). However, according to Goldman, four things are done by this individual: the action exemplifies four universal act-types, and thus is a structure composed of four act-tokens. This divergence concerns their different identity theory: Davidson holds that actions, like events, are particulars, the identity of which depends on their causes and effects; Goldman, however, maintains that 'if X and Y are identical, then X must have all and only the properties that Y has' (1970, 2). Goldman's notion contradicts Davidson's: according to Goldman, the identity criterion of an action depends on the properties owned by it, rather than the related causes and effects outside it.

With reference to the theories of Goldman and Davidson, Bhaskar, on the one hand, agrees with Davidson. He states that the same action is described in terms of the effects brought about by it. As Bhaskar states,

Now human activity is in fact a more or less continuous stream in time of such (more or less deliberate, more or less routine) causal intervening in the world, subject to the continuing possibility of reflexive self-awareness, only analytically separable into episodes. But to talk of such a stream as one of human activity itself presupposes an analytical distinction in the total biography of our bodies. For besides our praxes, that is, (α) the things that we do, there are (β) the things that happen to us. It is customary to restrict the term 'action' to the former... *Now the same action may be redescribed, correctly, in terms of its effects (results and consequences), which may or may not be intentional.* (Bhaskar 1998, 90; emphasis added)

According to this interpretation, an activity is a continuous stream in which there are body movements; if we want to identify some body movements as actions, then they have to be done intentionally. Thus, actions are a kind of body movement done intentionally. Different descriptions of this action are provided in terms of its effects. On the other hand, however, Bhaskar's concepts of action match Goldman's theory. He holds that an action is entity-like. It consists of many acts, intentional or unintentional. He states,

I may flick a switch to turn on a light, to illustrate a philosophical point, blowing a fuse, so annoying my host, but also alerting a prowler, etc. This is the familiar ‘accordion effect’ of action - in which, in a single action, a number of different acts (some intentional, some not) are performed. Acts, then, are what are done in or by actions. There is in general no single correct description of an action, independent of context and descriptive purposes, of it as an act of a particular type. (Bhaskar 1998, 90-91)

Only the latter notion is consistent with Bhaskar’s views on social structures (I will discuss his views on society in detail in Section 4.3) and with his rejection of the identity theory represented by Davidson, who maintains that the identity criterion of an event is the causal context in which it is located. In Bhaskar’s view, a social structure is not the composition of individuals. It pre-exists individuals. An individual’s action concerns not only his reason but also his position or social role in a social structure. For instance, the action of a nurse relates to his position in a hospital system. In this sense, the action model of a nurse depends on the whole structure, but is irrelevant to the particular person who occupies this position. Hence, I believe it can be concluded that, although their exemplification relies on persons, the *types* of social action transcend individuals.

Bhaskar's admission of act-types will also be uncovered through analysing his critique of the view which holds that an explanation of actions in terms of reasons is different from the causal explanation of events, such as body movements.⁸⁶ To be specific, this view holds that:

(1) If actions are events which have their causes, and if the causes of actions are reasons, then the identity criterion of actions is the same as that of the events.

(2) According to the identity criterion of events, if event A is identical to event B, then they must be in the same event sequence, having the same causes and effects.

(3) However, the same action has different reasons and is performed by different body movements; this means that the same action can be in different sequences.

(4) Thus, reasons are not causes. (The other statements in the antecedents of (1) are supposed to be right)

(5) Thus, reason explanations are not causal explanations.

⁸⁶ To quote Bhaskar, 'According to the next set of considerations, reasons and causes differentiate, not distinct kinds of events or happenings, but distinctive types of explanation. Typically, it is argued that to cite a reason is to talk at a different logical level, or as Waismann puts it language stratum, from that at which one talks of the causes of natural events. This thesis has a distinctly Kantian air, and is compatible (as in Davidsonian 'anomalous monism') with the idea that all events are governed by a closed deterministic system of (Humean) "laws", that is, empirical invariances. In support of this position it is argued: (a) that criteria for identity are different in the case of human actions and bodily movements' (1998, 95).

The method Bhaskar uses to attack (4) and (5) is to invalidate (2). He holds that this notion presupposes the Humean notion of causation, inasmuch as it claims that any given event is accompanied with a unique pattern of events and thus corresponds to a constant conjunction of events. However, in an open system, this conjunction is less likely to emerge, and this implies that the same event can be in different event sequences, having different causes. To quote his argument in *The Possibility of Naturalism*,

Now as, in general, open systems are characterised by both a plurality and a multiplicity of causes, the fact that the same bodily movement may be used to perform different actions, and that the same action may be performed with different bodily movements, should hardly surprise us. It is a Humean myth to suppose that for any given event (under a particular description) there is a unique set of antecedent or concomitant conditions under which it is constantly conjoined. (Bhaskar 1998, 95)

Hence, his opponents cannot argue (4) and (5) in that actions and event are similar.

However, his critique is invalid: his account of the Humean notion is illogical. Only with reference to event types can his argument be valid. In Bhaskar, the Humean notion ascribes the identity of a given event to the unique causal context it is located in, and thus implies that the same event is in the same pattern, namely, a constant conjunction of events. Nevertheless, a unique pattern of events cannot correspond to a constant conjunction. If the conjunction in which event A is located is unique, it then implies that ontologically, we cannot confirm that

events in this conjunction are constantly connected, in that the conjunction cannot repeat.

Only event types are compatible with a constant conjunction of events, because they can be repeatedly exemplified. Hence, Bhaskar's announcement, 'the same event can be in different sequence of events', aims at only the notion that the same event type is in the constant conjunction of event types. He cannot criticise the Humean notion that the identity criterion of a given event is a unique causal context in which it is located.⁸⁷ The notion Bhaskar *actually* rejects is:

(2)' According to the identity criterion of event types, if event type A is identical to event type B, then they must correspond to the same *type* of cause.

(3)' *Actions belonging to the same type can have different reasons. Therefore, the same act type can be in different sequences.*

⁸⁷ I think Davidson provides a complement to my argument. He holds the view that if event A is identical to event B, then they must have the same causes and effects; that is, they are in the same event conjunction. Meanwhile, he also maintains that reasons are causes and a reason explanation is a causal explanation. The coherence between these two ideas concerns his ontology: events, as well as actions, are particulars; event types do not exist. According to this, (3) is invalid, because the statement, 'the same action may be in different event sequences', is wrong; if action A and action B are in a different event sequence, then they cannot be identical. The identical criteria of actions are the same as those of events. This approach is opposed by Bhaskar: 'One has no grounds here for saying that there is not a real difference between a human action and a mere bodily movement in that in the former (but not the latter) case a determinate set of reasons figures among its causes' (Bhaskar 1998, 95).

Consequently, it is concluded that one person can perform the same kind of action with different reasons. The classification of activities is irrelevant to their reasons. In the next section, it will be shown that in Bhaskar's view, reasons are causes of activities. They concern only with particular activities of individuals. Hence, reason explanations are not interpretations of the meaning of activities.

4.2.2 Reasons

Bhaskar states that reasons are tendencies. Actions are the realisation of those tendencies in an open system. In Bhaskar's view, reasons are beliefs possessed by agents. It is a matter of the mental state or disposition of human beings (Bhaskar 1998, 92). The particularity of such beliefs consists in their relation with actions: the agent believes (perhaps unconsciously) that acts 'possess some quality that is desired or more generally wanted (again perhaps unconsciously)' (Bhaskar 1998, 93). Given a suitable situation, a reason to do something tends to exercise and bring about a want to do something. The manifestation of this tendency in an open system is an action.⁸⁸

⁸⁸ In Bhaskar's view: 'Such reasons are clearly distinct from actions: they are possessed even when unexercised, and only exercised under suitable conditions, for example, on polling days. In general, they have to be analysed normically, that is, as tendencies; and like any tendency manifest in open systems, they are defeasible in special circumstances (for example, illness) or under the pressure of countervailing reasons' (1998, 103).

In addition, reasons, as a kind of mental state, result from the application of mind. Mind, according to Bhaskar, is a composition of powers or capabilities.⁸⁹ These powers can be utilised and thus cause mental states under some situations. Hence, mind is a kind of mechanism possessing powers, the exercise of which produces tendencies, such as reasons.

Nevertheless, Bhaskar (1998, 107) firstly refuses to identify the substance of mind, maintaining that it is neither possible nor important. In doing so, he claims that his theory is neither for monism nor for dualistic interactionism (Bhaskar 1998, 107). What he confirms is that human beings do have minds, possessing mental powers. Secondly, he maintains that mental powers emerge from matter, but cannot be reduced to it.⁹⁰ Thirdly, Bhaskar shares the standpoint that mental states are identical neither to physical states nor to brain states.

According to the notion of stratification, higher-order states are not reducible to lower-order ones, although they emerge from the latter (or them). In Bhaskar's view, mental states are higher-order states, whereas physical and brain states are lower-order ones. Mental states have their own ontological status.

⁸⁹ Bhaskar (1998, 89) maintains that capacities constitute mind. In addition, he says, 'Mind just is a complex or set of powers, as far as we know, historically emergent from and present only in association with (certain complex forms of) matter' (Bhaskar 1998, 107).

⁹⁰ Bhaskar states: 'The powers associated with mind are both real, that is, causally efficacious (see the second and third sections), and irreducible, that is, emergent from matter (see the fourth and fifth sections)' (1998, 117).

Nevertheless, Bhaskar's critique of the notion which supports the identity between mental and physical states is weak. He rejects anti-reductionism by criticising materialism which holds that some physical states are mental states and all mental states are physical states (Bhaskar 1998, 112). This notion considers mental states as a species of physical states, and thus infers: firstly, that those physical states, which are mental states, have some properties distinguishing them from other physical states. Secondly, that what is truly said about mental states is also truly said about those physical states. Hence, in Bhaskar, the truth of the statement, 'mental states are intentional', implies the truth of 'some physical states are intentional'. However, according to Bhaskar, it is clear that the latter statement is wrong. The validity of his argument depends on the truth of several presumptions: (1) 'there are mental states'; (2) 'some mental states are intentional'; (3) 'all physical states are not intentional'. Both (1) and (2) are invalid for materialists, so Bhaskar ought to argue for the existence of mental states and their intentionality. Nevertheless, he does not take this strategy. Firstly, he states that materialists might hold that all statements on mental states are wrong. 'This view', he states, 'is absurd. For it is a necessary condition for any discursive intelligence that it should be able to refer and intend, explicate and judge' (Bhaskar 1998, 112). This argument is poor. In materialists' view, such a 'should' might result from the operation of the brain.

Bhaskar falls into the trap of a circular argument: the notion he ought to argue for is taken for granted and used to attack his enemy.

In addition, Bhaskar's critique of materialism presupposes a meaning referential theory. He states that distinct disciplines imply the existence of different objects, because their terminologies are different. The notion, which is rejected by Bhaskar, holds that physical states explain mental states in a way to show that they are identical, because the objects referred to by the statements of some physical states are the same as those referred to by the statements of mental states.⁹¹ It implies that scientific discovery is re-categorisation (Bhaskar 1998, 112). Nevertheless, this is invalid, because what happens in science is the opposite:

Scientists discover that what is referred to as 'water' or 'a gene' is in fact composed of (or consists of nothing but) molecules of H₂O or DNA, where they possess independent criteria for the identification and/or description of the properties of the *explanandum*. Moreover such an explanatory recategorization in science does not deny, but depends upon, the notion of the higher-order (or *explanandum*) level and its properties being real. (Bhaskar 1998, 112-113)

⁹¹ To quote Bhaskar : 'for it would seem that the "X-sense" must be explicated roughly as follows: Np- states explain P-states in such a way as to show that they are in fact identical, that is, that the Np-states picked out in L_{Np} designate one and the same thing as the P-states picked out in L_p' (1998, 112). In this paragraph, 'P-states' stand for mind states, and 'N-states' for physical states. 'Np-states' refers the physical states, which are mind states. (L_{Np} means the language referring to Np-states)

According to these articulations, Bhaskar roots for the notion that different vocabularies of distinct disciplines must stand for different existent properties to which they refer.⁹² In other words, if special sciences study the same property, then their terminologies must be the same. Because statements about mental states are different from statements about physical states, it is concluded that mental states are not identical to physical states.

This standpoint of meaning is also shown in his ‘revelation’ of materialism’s contradiction. He argues that A cannot be identical to B, in that the discussion on their identity presupposes they existing separately. As a consequence, materialism entails a contradiction. If mental states are illusions, then discussing their identity with physical states is impossible, since such discussion requires real mental states. However, if mental states are real, then they are not identical with physical states (Bhaskar 1998, 113). His critique, I believe, is absurd. In Bhaskar’s view, the statement, ‘if event A is identical with event B, then there is only one event, but not two’, entails a paradox: the confirmation of the existence of A and B is assumed by concepts ‘A’ and ‘B’. Hence, A and B cannot be identical to each other. I do not think the antecedent in this statement confirms the existence of A and B, but rather supposing their existence. This supposition, thus, can be negated. Only if Bhaskar presupposes that the

⁹² In the previous chapter, I argue that the transcendental argument is used to justify his ontology but it turns out to be redundant if Bhaskar approves of the meaning referential theory.

differences between concepts correspond to different existent things, such contradiction revealed by him is possible.

4.2.3 Reasons Cause Actions

In Bhaskar, the process of reasons causing actions is similar to the realisation of tendencies of mechanisms. However, this account is not enough to argue the view that reasons cause actions, in that Bhaskar does not answer the question: ‘why could reasons be causes?’ To answer this question, Bhaskar argues: firstly, reason explanations are causal explanations; secondly, the function of reasons is causal; thirdly, mental states cause physical states.

The truth of the statement, ‘reasons are causes of actions’, in Bhaskar, is associated with the verification of another one: ‘reason explanation is causal explanation’. The object of a reason *explanation is a particular action done by a particular person at a particular time. It is irrelevant to the meaning of an act type*, such as ‘chopping wood’ and ‘saying hullo’, but is devoted to answering the question: ‘Why does the agent perform that action at time T?’⁹³ In

⁹³ As Bhaskar states, ‘For or the meaning of an action such as "chopping wood“ or "saying hullo”’, that is, its correct identification as an act of a particular type in a particular language and culture, is always and in principle independent of the intention with which it is on some particular occasion, by some particular agent, performed. (This is not of course to deny the importance of a hermeneutic understanding of the language or culture for the correct identification of the latter.) Now the immediate *explananda* of reason explanations are intentional acts. And it is a necessary condition for an act to be correctly described as intentional that the agent believes (perhaps unconsciously) it to possess some quality that is desired or more generally wanted (again perhaps unconsciously). Thus that which one wants to discover in what a reason explanation allows one immediately to

my opinion, the importance of characterising a reason explanation as a causal one is as follows: if one reason explanation, 'R is the reason of doing this action at time T', is true, then another statement, 'R is the cause of doing this action at time T', is also true; hence, it is confirmed that R is the cause of doing action at time T.

In Bhaskar's view, Reason explanations are causal ones. Firstly, anti-naturalism agrees that reason A, in explaining a given action, is used to justify this action performed by a particular agent at time T. This justification, according to Bhaskar, is impossible unless we accept the notion that A causes this action (Bhaskar 1998, 95). For example, Jason stole Emma's wallet at time T. Many views could be brought forward to justify this action: Jason might believe stealing is a way to get money; or he believes that it is a way of revenging himself on Emma; he even could do this for no reason. All these views make sense of Jason's action and are able to justify his action. Nevertheless, to justify his action at time T, an explainer ought to identify one reason (or reasons): they ought to make sure that Jason did this for this (these) reason(s) rather than others. Thus, reasons' being able to justify an action is not adequate to justify a given action. The reason really justifying this action needs something else: it has to

explain is not its correct social meaning, but the trait or quality that the agent believes his/her action to possess (which could be called actor's meaning)' (1998, 93-94).

be shown that Jason did this because of reason A, that is, reason A is the cause of Jason's stealing Emma's wallet at time T.

Secondly, Bhaskar shows that, in the explanation of actions, reasons play the same roles as causes which are used to explain events in natural sciences. They both provide more information about the *explananda*, re-describing their objects. Because of this, in explanation, the statements of reasons, as well as those of causes in natural sciences, are logically connected with the concepts of *explananda*.⁹⁴ In Jason's case, if the statement, 'getting money is the reason for Jason's stealing', is confirmed, it then logically implies 'Jason's stealing'. Similarly, in natural sciences, 'A' is implied in the model of causal statement—'B causes A'. Hence, there is no ground for the claim that reasons cannot be causes of action because reasons and actions are logically connected, while causes and effects are not.

Reasons cause actions, because reasons bring difference to actions. In Bhaskar's view, 'the criterion of causal efficacy is "making a difference" to the state of affairs' (1998, 100). Given this criterion, Bhaskar states (1998, 101) that firstly, if we accept that reasons are not causes, it then implies that reasons cannot affect our actions. As a consequence, they are unrelated to

⁹⁴ Bhaskar (1998, 94) holds the idea that logic refers only to statements.

each other. In this situation, the evaluation of the beliefs, which is required by deciding to do something, cannot influence agents' actions. Further, the concept of agency fails, in that it depends on the concept of responsibility which must be causal and presupposes the causation between reasons and actions.⁹⁵

Finally, reasons could cause actions, inasmuch as mental states cause physical states. The connection between mental states and physical states is involved in the issue of the causation between reasons and actions. In Bhaskar's view, when reasons are used to explain the production of actions, some mental states are inevitably referred to.⁹⁶ For one thing, reasons

⁹⁵ In arguing this notion, Bhaskar puts forward another idea: 'And unless our responsibility is causal, agency follows in the wake of reason explanations and intentionality as just another fairy-tale. It might be thought that a conflict arises between agent—and reason—causality. But this is not so. For agents are defined in terms of their tendencies and powers, among which, in the case of human agents, are their reasons for acting' (1998, 102). According to his views of reasons and beliefs, it is concluded that one person is responsible for his action, because it is his states, such as desire and reasons, which cause his actions. Hence, reason-causation of action is compatible with agent-causation of actions, and an agent's responsibility for his action is explicable with reference to the causation between his states and actions. However, Bhaskar does not clarify why someone has the notion that there is conflict between agent-causality and reason-causality. On Goldman's account, 'An agent is an entity that originates activity, that makes things happen instead of passively suffering external causes to operate through him ... The idea of universal causation, however, seems to be incompatible with this notion of human agency. If every event is caused by prior events, then a person's acts must be caused by events that occurred prior to the agent's birth' (1970, 81). Thus, the notion of causation is inconsistent with the concept of agent. Bhaskar's method to solve this features his argument for the notion that the causes of actions are not outside agents, but are the states possessed by them; states belonging to something can be causes.

⁹⁶ 'When a reason is cited in explanation of a human action any one of a whole variety of mental items may be invoked. But, at least typically, it seems that in any such explanation both cognitive and conative considerations

are beliefs. Beliefs are mental states, and so are reasons. For another, as argued above, besides reasons, the production of actions is assisted by conative elements, which are also mental states. Because actions involve body movements, the exploration of their bond with reasons is the issue of studying the correlation between body movements and mental states, a subject-matter which will be explored by resolving the mental states–physical states problem.

In Bhaskar's view, mental states cause some physical states; otherwise, social communication is impossible. For example, B says to A, 'give me that cup'; A gives the cup to B, and B gets it. If it is admitted that B's speech action influences A's action at this time, then it is justified that B's mental state, as well as of A's, are causes of A's action. Otherwise, A and B cannot communicate. In terms of Bhaskar's view of mental states and actions, B's speech act is a realisation of his mental state, which presupposes his mental powers. In addition, unless A understands B's speech, A would not correctly respond to B's request, giving the cup to B. Hence, both B's and A's mental states are added to the causal chain between B's speech action and A's action.

4.2.4 The Characteristics of Studies of Human Actions

are involved—in that if a cognitive item, such as a belief, is mentioned, a conative one, such as a desire, is presupposed, and vice versa' (Bhaskar 1998, 91).

By arguing that the relationship between reasons and actions, as well as between mental and physical states, is causal, Bhaskar confirms that scientific studies of actions are possible.

According to Bhaskar, such study is self-governed, having its own features.

The autonomy of this study field is ascribed to the self-sufficiency of its subject-matter—mental states. As mentioned earlier, mental states are identical to neither physical nor brain states. Thus, principles dominating the operation of physical as well as of brain states, cannot completely explain the situation of mental states. Because of this, it is implied that certain sciences of human beings, such as psychology, are self-governed.

The irreducibility of mental states also influences the examination of the causation between them and physical states. According to Bhaskar, this relation is trans-categorical. In the previous section, I have shown that Bhaskar is expressive of the view that mental states cause physical states. However, it also raises the question ‘How do mental states cause physical states?’ Bhaskar admits that once the causation between mental states and physical states is confirmed, it then requires media to explain this relation. Notwithstanding this confession, he holds that these media are trans-categorical: ‘We do not know how P-states affect N-states,

but that they do is ... apodeictically demonstrable' (Bhaskar 1998, 114).⁹⁷ This standpoint not only rejects reductionism but also avoids an endless regression. Assuming the medium between mental state A and physical state B is physical state C, then this raises another question: 'what links C and A?' This process is endless in the event that media between mental states and physical ones are physical. One strategy to avoid this dilemma is to reduce mental states to physical states. However, Bhaskar rejects this scheme, holding that the causation between these two states is beyond categories.

Reason explanations of actions have other features apart from being causal explanations. A reason explanation of an action is to justify this action. The justification presupposes the distinction between real reasons and possible ones, which, according to Bhaskar, is assumed by any cognitive activity taking thought as its object (Bhaskar 1998, 99). 'A real reason R', he says, 'may be defined as a reason possessed by some agent X at T which was causally efficacious in producing (bringing about) X's behaviour at T'. If one statement expresses the real reason of an action, then it is true (Bhaskar 1998, 101). However, to explain this action, many reasons might be considered to be the real reason. The statements which aim to explain an action but miss the real reason are wrong. To get a true statement, explainers firstly ought

⁹⁷ Bhaskar (1998, 111) defines P-states as mental states, and N-states as physical states.

to accept that their explanations are subject to negotiation in dialogue, recognising the need to reflect given statements. Secondly, they ought to refer to the rest of the agents' behaviours.⁹⁸

These two principles are available not only to the correction of social sciences, but also to the explanations provided by agents. An agent's explanation might be wrong, because it is possible that he is unconscious of the real reason inspiring his action. For instance, an agent believes that he steals for money without recognising that he does this for excitement. In terms of this, Bhaskar is on the side of the third-person perspective: a third person might be in a better position than the subject to know what the subject is thinking about.

Furthermore, a reason explanation is different from an ordinary causal explanation. An ordinary causal explanation follows a deductive-nomological model: scientists could predict what will happen in terms of general laws and given antecedent events. In Bhaskar's view, this model presupposes closed systems, obeying the Humean notion of causation and causal law. Because the world is open, scientists cannot predict what will deterministically happen. Society is an open system. Scientists, therefore, cannot predict agents' actions in terms of reason explanations, even if a general law on human actions is confirmed. For instance,

⁹⁸ To quote Bhaskar, 'More generally, the reason given by the agent is subject to two types of control: the control of negotiation in dialogue; and the control of coherence with the rest of the agent's behaviour' (1998, 102).

supposing there is a general principle that people believe that stealing is the most effective way to get money, can we predict that Jason will steal in terms of his desire of money? The answer is negative. Jason might also be educated to believe that stealing is immoral and is a crime. Hence, he has to evaluate those beliefs and make a decision about what to do. If we go further, it then demonstrates that human beings' actions are influenced by social structures: in Jason's case, it refers to an economic system relating to the function of money, and to a judicial system as well.

In addition, despite no interference, Jason is not determined to steal. He may want the money, but he does not want to steal. This concerns the production of an action. Reason is a necessary condition for an action, but not a sufficient one; a belief to do *A* does not entail a want to do *A*, without which action *A* is impossible. To quote Bhaskar,

An agent's belief corresponds to a tendency possessed, a want corresponds to a tendency exercised and an action to its manifestation in some or other physical state of the world, whether or not the want is realized. (Bhaskar 1998, 104)

Only when a belief to do *A* transfers to a want to do *A* is action *A* possible. To realise this transference, beliefs have to attach to pure desire (will).⁹⁹ So, a question remains: 'Why do

⁹⁹ 'Will', Bhaskar (1998, 105) says, 'may best be regarded as pure or unimpeded desire'.

beliefs attach to *pure desire*?' According to Bhaskar, we cannot answer this question. An activity occurs as a continuous stream, in which the volitional element can never be analysed away. This means that a *want to do* something cannot be analysed away from the process of action. In other words, only with reference to a given action could the perspective of the *want to do* this action be possible. For instance, the happening of Jason's stealing money presupposes his want to steal money. The pure desire is discussed with respect to Jason's specific want. In Bhaskar's view, pure desire can be discussed only with reference to the thing/action we desire. As a consequence, pure desire, as well as a *want to do* something, cannot be *analysed* outside a given action.¹⁰⁰ This implies that the relation between beliefs and desire (including pure desire and desire to do something) cannot be studied separately from an action, in which the attachment between them is already realised. What we can state is that the attachment of belief to desire simply happens in our life.¹⁰¹

¹⁰⁰ Bhaskar holds the idea that 'a desire, want or intention cannot be specified except as a desire, etc., to do something' (1998, 104). It shows that the desire can only be analysed with reference to a desire to do something.

¹⁰¹ However, Bhaskar provides an explanation of the attachment between beliefs and desires. He says, 'when pure desire encounters some obstacle, it requires beliefs about the manner as well as the object of its satisfaction' (Bhaskar 1998, 105). It seems that this notion implies that if Jason's pure desire meets with obstructions, then he might want money to achieve satisfaction and have beliefs about the ways of getting money. In this sense, beliefs attach to desire. I think to clarify Bhaskar's notion on this issue, two different kinds of want ought to be distinguished: the one is for objects, such as money; the other is for action (stealing). It is clear that Bhaskar's statement mentioned above refers to the desire for money rather than the desire for stealing. Hence, the relation Bhaskar explains is between beliefs about doing something and wanting objects, having nothing to do with wanting to do something.

4.3 Bhaskar's Ontological Account of a Society

Bhaskar (1998, 27) maintains that 'it is the nature of objects that determines their cognitive possibilities for us.' Hence, it is properties possessed by a society that make it an object of scientific studies. Concerning this premise, this section will demonstrate Bhaskar's ontology of society.

Bhaskar (1998, 39) states, a 'society is an ensemble of structures, practices and conventions which individuals reproduce or transform, but which would not exist unless they did so.'

Both individuals and social structures have their ontological status; however, they are connected through the social practices of agents. In *The Possibility of Naturalism*, Bhaskar accounts for the duality of social structures and of social practices. Firstly, a social structure pre-exists individuals. It is a necessary condition (material cause) for every intentional individual act. Secondly, the existence of it, as well as its transformation and reproduction, depends on individuals' behaviours. A social practice of human agents satisfies their demand and realises their purposes. It also sustains the existence of society, reproducing or modifying it, albeit individuals do not aim at. The example provided by Bhaskar is marriage. Agents

marry for their happiness. They do not aim at the reproduction of families which sustains the society. Nevertheless, marriage does sustain the society. This example supports the concept that social activities make ‘the conditions of their making, that is reproduce (or to a greater or lesser extent transform) the structures governing their substantive activities of production’ (Bhaskar 1998, 41).

A society, like nature, consists of many structures (mechanisms) operating in regular ways. It is ordered and stratified. Correspondingly, social activities are parallel with events, in that they are the realisation of the tendencies of social structures (Bhaskar 1998, 41). Despite this similarity, the particularity of a society consists in it being human-dependent. Firstly, Bhaskar states that social structures are activity-dependent: ‘the mechanisms at work in society exist only in virtue of their effects’ (Bhaskar 1998, 54). This conception, however, is potential for theoretical incoherence: if it is interpreted as the mutual causation between structures and agency, it then implies that one structure is both a cause and an effect of the same activities. To avoid this situation, two approaches are provided (See Chapter Five): the one is Archer’s method, and the other is Giddens’s. Archer states that one structure causally influences some social activities, and these activities bring about the persistence of this structure. For this reason, one structure predates actions maintaining it. The persistence of this structure

postdates actions maintaining it. Giddens maintains that with reference to the process of social praxis, social structures enable social activities, and simultaneously are reproduced by activities. Further, social structures, unlike natural structures, do not exist independently of the agent's conceptions of what they are doing (Bhaskar 1998, 42). This conception can be understood from two aspects: meaning and reasons. Firstly, Bhaskar states that social activities are concept-dependent; that is, they are meaningful. Meaning is intrinsic to social activities. Activities are classified into different types in terms of their meanings. Second, reasons are necessary conditions for social activities. With reference to this premise, activities depend on conceptions, in that they cannot be brought about without reasons.

In Bhaskar's view, apart from social structures, there are social relations. Why can individuals reproduce and transform society? Unless individual activities are performed relationally, social structures can neither be transformed nor reproduced. The activity of one individual is contingent on his or her position in a structure. He occupies one position in this structure, and thus is involved with relations to others. For example, in a McDonald's restaurant, the behaviour of a cashier is ascribed to his or her position— he is a cashier. Hence, he has a specific relationship with customers and his manager. Nevertheless, according to Bhaskar, social relations include not only interpersonal relations but also relationships

‘between people and nature and social products (such as machines and firms)’ (Bhaskar 1998, 45).¹⁰² With reference to essence, he makes a distinction between internal relations and non-internal ones:

A relation RAB may be defined as internal if and only if A would not be what it essentially is unless B is related to it in the way that it is. RAB is symmetrically internal if the same applies also to B. (‘A’ and ‘B’ may designate universals or particulars, concepts or things, including relations.) (Bhaskar 1998, 46)

This articulation implies that besides symmetrically internal relations, there are asymmetrical ones. An RAB is an asymmetrically internal relation if A would not be what it essentially is unless B is related to it, while the essence of B does not depend on its relation with A. A and B are in existential parity if they are in a symmetrically internal relation.

Internal relations are consistent with ontological depth or stratification, which is defined in terms of causal relationship (Bhaskar 1998, 47). In other words, A and B can be in an internal relation and in a causal relation at the same time. To quote Bhaskar: ‘Capitalist production may dominate (determine the forms of) exchange, without the latter ceasing to be essential

¹⁰² In *The Possibility of Naturalism*, Bhaskar also mentions that social relations are concerned with ‘the persistent relations between individuals (groups), and with the relation between these relations (and between such relations and nature and the products of such relations)’ (1998, 31).

for it' (1998, 47). Hence, it can be concluded that one causal relation is neither a non-internal relation nor an internal one, inasmuch as the identification of one relation, such as the stratification concerning A and B, as a causal one is irrelevant to essence.

In *The Possibility of Naturalism*, however, Bhaskar (1998, 47) argues that 'most social phenomena, like most natural events ... are conjecturally determined and, as such, in general have to be explained in terms of a multiplicity of causes. But, given the epistemic contingency of their relational character, the extent to which their explanation requires reference to a totality of aspects, bearing internal relations to one another, remains open'. This account shows that a totality, in which the essences of its aspects are internally related, is the cause of some social phenomena. Hence, it is required in the explanation of these phenomena. It leaves open the question of whether the explained social phenomena are themselves in this totality. Bhaskar does not answer this question.

4.4 On Social Sciences

Bhaskar's ontology of society provides him with the reasons to reject reductionism. Firstly, a society is not reduced to a collection of individuals, thus the study of it ought not to be reduced to analysing individual behaviour. In addition, scientific explanations of human

actions ought not to be reduced to one natural science, such as physics or neurophysiology,

for neither brain states nor physical states are identical with mental states.

To describe the ontological situation of a society, Bhaskar presents a concept scheme. I think

his scheme can be shown as follows:

The ontological situation of society (individuals—social practices—social structures).	The concept used to reveal this situation.
<p>Social structures and individuals have their own ontological status, and thus cannot be reduced to each other.</p> <p>The duality of social structures and social practices.</p>	<p><i>Transformational model of social activity</i>, showing the relation between individuals and society through practice.</p> <p>It refers to the duality of society and practices.</p> <p>The duality of practices: individual—human agency—intentionality/reason/ psychological things; society—the transformation/existence/reproduction of society</p>
<p>The function of individuals' activities.</p> <p>Why can individuals' activities which are used to satisfy their own desires and get their own purposes change a society unconsciously?</p>	<p>To answer this question, another concept is introduced: <i>position-practice system</i>.</p> <p>Position: occupied by human agents, referring to an agent's place and function.</p> <p>Practices: the activities of the agent according to his position.</p> <p>The individuation of the position– practice system must be <i>relational</i>, which means individual (a, b, c) who occupy this position and ought to do something must be in a relation.</p>

This conceptual scheme, which concerns the ‘transformational model of social activity’, ‘position–practice’ and ‘relation’, is compatible with the ontological relations between individuals, social practices and social structures. It also throws light on the subject-matters of different social sciences.

Sociology is distinguished from other social sciences. Bhaskar puts forward a relational conception of sociology: sociology concerns ‘the persistent relations relation between individuals (and groups), and with the relations between these relations (and between such relations and nature and the products of such relations)’ (Bhaskar 1998, 31). According to the notions of relations mentioned above, it is concluded that the study in sociology refers both to the study of essences and to causal relations.

Special social sciences, however, probe the structural conditions of different kinds of social action (Bhaskar 1998, 39). Hence, they employ the position–practice system. Starting from one social practice of one individual, scientists identify the position occupied by this individual. This position directs scientists to study a social structure in which the position is located. Hence, the interpersonal relations which are directly studied by sociology will be

indirectly studied by examining individual positions in social structures.¹⁰³ Psychology relates to individuals and their activities, exploring individual reasons, motivations and unconsciousness (Bhaskar 1998, 37-38). History, according to Bhaskar, is relevant to past particulars (Bhaskar 1998, 48).

Though Bhaskar stands for the view that society, like nature, is ordered and contains laws, the ontological particularities of society demonstrate the limits of naturalism. The limits of naturalism include epistemological limits and relational ones. The epistemological limits refer to four aspects. Firstly, because a society is activity-dependent, it is impossible to observe constantly conjoined events in the social sciences. A social structure can only manifest itself in an open system, which implies that it is impossible to establish a closed system which excludes the interferences from other mechanisms and reveals the pattern of events.¹⁰⁴ The absence of closed systems in social sciences gives rise to the second aspect.

¹⁰³ Bhaskar states that 'it is important to stress that from the standpoint of the social sciences, though not necessarily either that of the psychological sciences or of historical explanation, the relations one is concerned with here must be conceptualized as holding between the positions and practices (or better, positioned-practices), not between the individuals who occupy/engage in them' (1998, 45).

¹⁰⁴ This notion concerns Bhaskar's ideas about social activities. According to him, social activities, like events, are effects of the operation of mechanisms; in other words, they exemplify the operational model. In natural sciences, to discover a law, one mechanism ought to be isolated from others and this isolation is realised by providing a pattern of events. Similarly, if we want to discover a law in one social mechanism, a set of activities is required to isolate this mechanism from others. However, this is impossible in social science, because the production of activities inevitably depends on several mechanisms. For instance, a political speech

The criteria of reviewing social theory ‘must be explanatory and non-predictive’ (Bhaskar 1998, 50). Even if it performs in some situations, the pattern of events cannot signify the regular operation of social mechanisms. As a consequence, events cannot justify social theory. Therefore, the criteria in social sciences do not consist in the application of theories, but rather in the choice or the preference of them (Bhaskar 1998, 50). Thirdly, since a society is historically transformed and structured by relations, social sciences ought to penetrate qualitative changes, as well as quantitative ones (Bhaskar 1998, 50). Finally, language ‘stands to the conceptual aspect of social science as geometry stands to physics. And precision in meaning now assumes the place of accuracy in measurement as the posterior arbiter of theory,’ inasmuch as society is conceptually dependent and thus concerns meaning (Bhaskar 1998, 51). The relational limits refer to the relation between social sciences and its subject-matter. Bhaskar states,

Social sciences are part of their own field of inquiry, in principle, susceptible to explanation in terms of the concepts and laws of the explanatory theories they employ; so that they are internal with respect to their subject matter in a way in which the natural sciences are not. (Bhaskar 1998, 51)

relates only to the language system but also to the political system. Thus, social activities cannot be used to establish a closed system which is required for penetrating the operational model of one mechanism. According to this, the operation of one social mechanism must be realised in an open system, because its operation depends on social activities; the performance of activities requires several mechanisms.

Besides social relations and social structures, social sciences treat themselves as their subject-matter, because they are social products, the production of which is influenced by the rest of a society.

Given the account of social sciences, Bhaskar formulates his plan of explaining a society.

Bhaskar puts forward another concept: ‘scientific transcendental argument’ (see Chapter Three). The premise of this argument is ‘a social activity as conceptualized in experience’ (Bhaskar 1998, 56). Proceeding from this premise, we arrive at the real definition of a social structure which is presupposed by this social activity. As a consequence, a social structure is identified (Bhaskar 1998, 54-56).

Bhaskar’s philosophy of social sciences supports naturalism. His argument includes his ontology of societies and his account of special sciences. The latter is grounded in the former, because Bhaskar maintains that the features of objects make the scientific studies of these objects possible. Scientific studies of a society are possible. Firstly, social scientists provide causal explanations of individual activities by discovering real reasons. Secondly, the operation of social structures is regular; social scientists explore the operation modes of generative mechanisms. Bhaskar, however, takes an ambiguous stand on the relations

between social structures and social actions. He does not answer two questions: how do social structures influence social processes? how do social structures constrain social actions? As consequence, his theory opens itself to methodological individualism and interpretative approaches.

4.5 Bhaskar on Hermeneutics

Hermeneutics emphasises that social studies are different from natural sciences. The former aims at reconstructing the meaning of social actions from the agent points of view. This standpoint has an ontological presupposition. A society is different from nature, in that it is constituted by the meanings humans create; understanding is a way of living. In the *Possibility of Naturalism*, Bhaskar reviews this approach by criticising Peter Winch's theory. His attitude towards hermeneutics, in general, is that although interpretation is required for social studies, the exploration of a society is not exhausted by it. Adequate accounts of a society comprise causal explanation. With respect to Winch's *The Idea of a Social Science*, Bhaskar provides a summary of Winch's theory.

Winch's position, according to Bhaskar, is that social exploration is no more than understanding agents' reasons to do something; it is entirely conceptual. The aim of social

exploration is to uncover the meaning internal to social behaviours. Social behaviours are meaningful because they are rule-following. If a social behaviour is governed by rules, it is then argued that the agent of this behaviour has a conception of what he is doing. This conception, first, demonstrates the meaning intrinsic to this behaviour: 'The subject-matter of the social sciences has the unique property that it entertains beliefs about itself' (Bhaskar 1998, 148). Second, this conception is embraced in an agent's reasons to do something. Hence, one's reasons for an action presuppose that this action is meaningful and rule-following. To be specific, the fact that people can act for reasons (motives) 'depends upon the possibility of their behaviour being meaningful, that is, the existence of a framework of rules; but converse is not the case' (Bhaskar 1998, 153). Since Winch states that social actions must be done for reasons, it is concluded that all social actions are rule-following. With reference to these articulations of Winch's theory, Bhaskar criticises as follows.

Firstly, Bhaskar states that adherents of hermeneutics, including Winch, accept the Humean position on causal laws and causations. They state that casual laws are constant conjunctions of event types. A causal relationship is between event tokens; a relation between event tokens cannot be causal unless it instantiates a causal law. With reference to these premises, hermeneutists argues that there are neither causations nor causal laws in a society, because

there are no constant conjunctions between social events. Hence, unlike natural sciences, social studies cannot appeal to discovering empirical generalisations. Bhaskar states that this argument of the impossibility of naturalism is invalid, in that its premise, the Humean position on causal laws and causations, is implausible. Critical realism's approval of naturalism is based on its rejection of the Humean theory, which states that causal laws are no more than constant conjunctions of events. It maintains that causal laws are the ways of the operation of generative mechanisms, but not patterns of events. Further, causal relations are not between event tokens; rather, they are relations of causal agents with the difference brought about by them.

Secondly, Winch expresses that social exploration is conceptual. This position is based on a problematic ontological theory of society. 'A society is entirely conceptual in character' to be specific, social beings are characterised by their belonging to a system of idea or a mode of social life. Bhaskar rejects these accounts (Bhaskar 1998, 147-148). A society is not exhausted by its conceptual aspects; it contains material elements. For one thing, in terms of Bhaskar's theory of emergence, mental states, including reasons and beliefs, emerge from physical states of agents; they rely on physical states. For another, the subject-matters of social studies do not include only meanings and actions. Bhaskar clarifies,

Social science is not only concerned with actions, it is concerned with their conditions and consequences (including the states and relations of structures and agents). And it is concerned with what societies and persons are (and may become), as well as with what they do. Moreover it is concerned with actions which are practical, not just symbolic: with *making* (poiesis), not just *doing* (praxis), or rather with doing which is not, or not only, *saying* (signifying or expressing). (Bhaskar 1998, 154)

Material aspects are involved in the understanding of the meaning of social behaviour. The interpretation of the meaning of social behaviours requires interpreters to introduce material aspects. For instance, the identification of the meaning of being in a prison relates to one agent's being 'physically separated from the rest of society' (Bhaskar 1998, 150). Hence, the interpretation of a social behaviour cannot be exhausted by understanding one agent's conception of his actions.

Thirdly, the method of social explanation is not merely understanding. Rather, causal explanation is available in studying a society. Material aspects of a society cannot be studied in terms of merely interpreting the meaning of social behaviour. Take environmental pollution for instance, the study of this phenomenon requires data collection and explanations of the causal relations between human beings and natural environment. Further, a reason

explanation is a causal explanation. As I clarified in the first section, reasons not only contribute to the intelligibility of social actions, but also are causes of actions.

Finally, Bhaskar rejects Winch's identification of the interpretation of an agent's reason to do something with the capture of the meaning of social behaviours. First, he states that the reason to do one action does not presuppose that this action is rule-following. Hence, understanding one's reasons to do something entails the revelation of neither social forms nor meaning. One agent's action can be described in terms of social forms, but this action is not rule-abiding in the case that social rules do not provide 'the agent in the context in which his/her action occurs with a sufficient reason (or motive) for acting as s/he does' (Bhaskar 1998, 153). Bhaskar provides the example of voting Labour. One agent's action of voting Labour could be intentional while not rule-abiding. On the one hand, this person acknowledges the symbolic relationship between the behaviour of voting and the government coming to be in power; on the other hand, this recognition is not a reason for his voting Labour, in that he made this decision by flipping a coin. Second, Bhaskar maintains that Winch's conception presupposes the identity of reasons and meaning. This eliminates the distinction between intransitive dimension, the dimension of objects, and transitive dimension, the subject's notions of objects. Thus, it gives rise to relativism (Bhaskar 1998, 164). Reasons,

in terms of Bhaskar's theory, involve an agent's conception of what he is doing; that is, the agent captures the meaning of social actions. In this situation, the meaning of social actions is the object of agents; they are presupposed by, but not identical with, the agent's conception of them. The distinction between meaning and an agent's characterisation of meaning contributes to the fallibility of the latter. Meaning is the essence of social actions; it is objective. Since activities happen in a society, it is argued that meaning constitutes social reality. Nevertheless, what the meaning of a kind of social action really is does not depend on an agent's conceptions of it. Accordingly, Bhaskar lays the truth of conceptions on an objective foundation; and thus rejects relativism.

Notwithstanding his critique of hermeneutics, Bhaskar's attitude towards this social study approach is not as hostile as his attitude towards methodological individualism and methodological collectivism. Social studies require conceptual analysis, but are not exhausted by it. This sympathy to hermeneutics is shown in Bhaskar's conceptions of the relation between social structures and reasons (and activities). First, despite his causal conception of society, Bhaskar does not clarify that the relations of social structures with reasons and activities are a causal one. He states that social structures condition reasons, and govern actions. This account, however, is ambiguous. For one thing, Bhaskar does not answer the

question; is the direction of social structures to actions realised through causation from the former, or through the agent's conceptualisation of the former? Hermeneutists also agree that social actions are directed by social norms. The realisation of such guidance is mediated by an agent's conceptualisation of social norms. Hence, adherents of interpretative approaches endeavour to explore how social norms are specified and interpreted in concrete action context. For another, Bhaskar does not define the meaning of 'condition.' Three interpretations can be provided. First, social structures are sufficient conditions of actions; second, social structures are necessary conditions of actions; third, social structures are the pre-given background of the happening of social actions, and thus constrain them. Finally, as analysed in the previous section, according to Bhaskar's ontology of a society, arguing the causation between social structures and social actions is problematic. Bhaskar (1998, 54) states that '*the mechanisms at work in society exist only in virtue of their effects*'. If this conception is interpreted as the mutual causation between structures and agency, it then implies that one structure is both a cause and an effect of the same activities.

Bhaskar's tolerance for hermeneutics is also shown in his articulations of the methods studying the relation between social structures and social activities. Albeit special social sciences are not exhausted by conceptual analysis, the interpretation of the meaning involved

in activities is required. In the previous section, I have demonstrated that special social sciences are concerned with the structural conditions of social behaviour. Starting from one individual's behaviour, scientists proceed to identify the position occupied by one agent, and then to capture a whole social structure in which this position is situated. Here leaves a question; how can social scientists identify a structure by proceeding from one agent's behaviour? In terms of Bhaskar's theory, a social structure is identified by providing a real definition of it; this concerns the conceptual-dependent nature of social activities. In his accounts of the production of social scientific theories, Bhaskar (1998, 52) states that scientific theory, T, is produced by transforming proto-scientific set of views P. The first step is to identify the object in question. To accomplish this goal, views P ought to be some descriptions and definitions of social activities; social activities are concept-dependent, thus, proto-scientific views of them entail the identification of social activities. According to the transformation model of social activity, it is known that the identification of one social activity is accompanied with the designation of some social structures required for it. Following this step, scientists attempt to provide 'a real definition of a form of social life that has already been identified under a particular description' (Bhaskar 1998, 54). The method of producing this definition is scientific transcendental arguments. The premise of this argument is a social activity conceptualised in the experience, which means that a transcendental

argument starts with an interpretation of the conceptions implicit in an agent's experience; however, this interpretation is not enough, social scientists ought to provide an insight into the structure required for this activity through conceptual analysis. Hence, it is shown that the relation between social structures and an agent's behaviour is studied by virtue of an interpretation of the meaning entailed in social activities.¹⁰⁵

4.6 The Compatibility between Bhaskar's Theory and Methodological

Individualism

Let us analyse Bhaskar's approach of criticising methodological individualism. Firstly, Bhaskar (1998, 32) states, 'Individualism derives plausibility from the fact that it seems to touch on an important truth, the awareness of which accounts for its apparent: namely the idea that society is made up or consists of—and only of—people'. Bhaskar's critique of methodological individualism, therefore, is linked with his rejection of ontological individualism. To be specific, Bhaskar argues that methodological individualism is based on ontological individualism. Because ontological individualism is undermined by critical

¹⁰⁵ As Bhaskar states, 'Now the minor premise of any substantive social scientific transcendental argument will be a social activity as conceptualized in experience. Such a social activity will be in principle space-time-dependent. And in the first instance of course it will be conceptualized in the experience of the agents concerned. It is here that the hermeneutical tradition, in highlighting what may be called the conceptual moment in social scientific work, has made a real contribution' (1998, 56).

realism, methodological individualism is groundless. This way of criticising methodological individualism is challenged by some scholars who state that ontological individualism is not presupposed by methodological individualism. Lars Udehn, for instance, argues that ontological individualism is not a necessary condition for supporting methodological individualism. Methodological individualism could gain credit from epistemology and methodology. Confronting this challenge, I think, firstly, there is a need to clarify the target of Bhaskar's critique. In *The Possibility of Naturalism*, the methodological individualism under Bhaskar's attack are the theories by Karl Popper, I.C. Jarvie and J.W.N. Watkins. They are on the side of ontological individualism. Popper, for instance, states that social structures are theoretical entities: they are descriptions of subjects' experiences. Watkins states that ontological individualism entails methodological individualism. As a consequence, Bhaskar criticises a strategy which upholds methodological individualism through ontological individualism. In addition, although ontological individualism is not the only way to approve methodological individualism, it does not prohibit critical realists from concluding that methodological individualism does not capture the ontological features of a society, and that, compared with methodological individualism, critical realist method is more appropriate to the reality of society.

Secondly, in Bhaskar's view, methodological individualists state that in social explanations, *explanandum* statements of social phenomena are *deduced* from *explanans* sentences about individual principles (Bhaskar 1998, 30). Watkins, for example, states,

Social process and events should be explained by or be deduced from a) principles governing the behaviour of participating individuals and b) descriptions of their situations. (Watkins 1973, 149-150)

The plausibility of this scheme is substantiated in two respects. One is the Deductive-Nomological Model (D-N model), a formal structure applicable in explaining all events. The other is the requirement of individual ideal types which concerns the situation of actual individuals. Both of these are criticised by Bhaskar.

In Bhaskar's view, the D-N model of explanation is based on the Humean position on causation: 'cause' is understandable only with reference to *regularities*; a statement, 'A causes B', is justified only by subsuming it under a general statement of regularities. On the contrary, Bhaskar endorses singular causation, a concept releasing causes from regularities. It argues that a thing being a cause does not require that it contributes to the instantiation of regularities. Bhaskar states, firstly, if A makes a difference to B, then A is identified to be the cause of B. For instance, reasons are the cause of agents' behaviours, because they make

differences to their behaviours.¹⁰⁶ Secondly, a causal statement is in the form of ‘a common noun + a verb of activity + a predicate’.¹⁰⁷ For instance, ‘Anne pushes the door open’ is a causal statement of the opening of the door. As a consequence, the confirmation of ‘A causes B’ does not depend on the relation of this statement with general statements.

Bhaskar also maintains that social explanations are not deduced from individual ideal types.

Watkins states that there are two kinds of ideal types: holistic ideal types and individual ideal types. Conceptual schemes ought to proceed from individual ideal types to holistic ideal types.

Defining a holistic ideal type is impossible without employing individual ideal types

(Watkins 1973, 147-148). Because a scientific explanation is logically deductive, a scientific theory starting from holistic ideal types is invalid in that individual ideal types define, but are not derived from, holistic ones. Bhaskar criticises these concepts. He states that the definition

¹⁰⁶ To quote Bhaskar, ‘For either a reason will make a difference to his/her behaviour or it will not. In the former case it counts as a cause’ (1998, 101).

¹⁰⁷ Both Bhaskar and Rom Harré take this view. To quote Harré, ‘A causal statement relates, for example, a common noun and a predicate by a verb of causal activity. Thus: “Acid solution turns logwood solution red”’ (Harré & Madden 1998, 105). Similarly, Bhaskar states, ‘These studies show that we ordinarily experience mechanical causation, i.e. the displacement of physical masses in space and time, in terms of transitive verbs such as “pushing” and “pulling” which cannot be explicated ostensively; but rather embody an intensional relationship between cause and effect’ (2008, 80). He also says, ‘Now transitive verbs such as “pushing”, “pulling”, “knocking”, “twisting”, “binding”, “squeezing”, “holding”, “forcing”, “driving”, “turning”, “stimulating”, “producing”, “generating”, “bringing about”, “making”, etc. lie at the root of our notion of cause’ (Bhaskar 2008, 111).

of individual ideal types relies on holistic ones, because ‘predicates designating properties special to persons all presuppose a social context for their employment. A tribesman implies a tribe, the cashing of a cheque a banking system’ (1998, 30). Hence, in social explanations, holistic ideal types are irreducible.

Although Bhaskar rejects methodological individualism, his theory is compatible with methodological individualism. In the following paragraphs, I will first clarify a view consistent with methodological individualism although it recognizes the ontological status of social structures and the causal influence of social structures upon social actions. This view is about the relationship between social structures, social actions and social phenomena. If the question, ‘how does a social structure B affect a social phenomenon C?’, is reduced to the issue that how social structure B causally influences social action A which produces phenomenon C, then the explanation of phenomenon C in terms of B is potentially consistent with methodological individualism. To be specific, supposing social structure B makes a difference to the phenomenon C. Given causing is defined in terms of making a difference, the causal statement, ‘structure B causes phenomenon C’, is justified. Nevertheless, this statement is insufficient for the explanation of the happening of C, because it does not answer the question of how structure B causally influences C. If this question is addressed *merely* by

the statement that structure B affects C through influencing social action A which brings about C, then the explanation of C in terms of B is reducible to the explanation of A in terms of B. The following question is: how does structure B causally influence A? I do not deny that social phenomena are the effects of social actions and social actions are required to explain social phenomena. What I mean is in the explanation of social phenomena in terms of social structure, the statements of social actions must be involved and be the linkage between the *explanans* propositions of social structures and the *explanandum* propositions of social phenomena. In this situation, the effect of social structures upon social phenomena cannot be analysed separately from their influence on social actions.

In this situation, the question, ‘how do social structures affect social actions?’ is essential to explanatory strategy. Addressing this question opens the way to methodological individualism. Let us give an example. Firstly, a methodological individualist could state that an individual acts rationally. He makes a rational choice in terms of his surroundings. It could be argued that social structures affect social actions, because the surroundings an agent confronts presupposes social structures. Even if they accept this concept, methodological individualists do not have to integrate social structures into their explanation of social actions. The surroundings recognised by an agent and restraining his actions are based on *only* the

information collected and understood by him in the communication with others. As a consequence, notwithstanding the causal influence of social structures upon social actions, the role played by social structures in explanation is subordinate.

Bhaskar's theory confronts this danger. Firstly, his ontology does not prohibit the reduction of the question, 'how does a social structure affect social phenomena?' to the issue of the causal influence of social structures upon social actions. For instance, Dave Elder-Vass makes use of the concept of emergence and provides a weak definition of social structure. Elder-Vass (2005, 310) states that although his concept of emergence is ambiguous, Bhaskar does not deny the compositional definition of emergence.¹⁰⁸ By this concept, Elder-Vass means that

¹⁰⁸ See also Kaidesoja (2009). In critical realism, we could tell three different concepts of emergence. Firstly, emergence is used to describe a new structure is originated from the anterior ones over time. For instance, Bhaskar says: 'Higher strata may have arisen, for all we know, by accident; their historical emergence may be accounted for entirely as a by-product of processes describable in fully lower-level terms. But that does not mean that the emergent strata are "nothing but" those from which they emerged' (1998, 188). In this articulation, the historical emergence of higher level stands for the giving birth of higher-level. 'Emergence' is about diachronic happenings. Secondly, this concept is employed to describe the synchronic relationships between two mechanisms on different layers. For instance, Bhaskar formulates a conception of synchronic emergent powers materialism. This concept underlines that mind, brain property and physical property are at on different levels: mind cannot be reduced to brain property; brain property cannot be reduced to physical property. Although mind cannot exist in the absence of body, it has emergent properties which could have causal influence in its own right. Thirdly, both Elder-Vass and Kaidesoja state that in Bhaskar's theory,

any higher-level entity (and its emergent properties) is dependent upon a collection of lower-level entities in the sense that (a) they are the necessary component parts of the higher-level entity; (b) the emergent property is dependent upon (but not eliminatively reducible to) the properties of these parts; and (c) the emergent property, in the sense of a power or tendency, is not dependent upon the properties of other entities that are not such parts (although it may be so dependent for its realisation). (Elder-Vass 2005, 325-326)

Through this concept, Elder-Vass elucidates that a social structure is an entity composed of individuals who are located in relation to one another. *An entity* is ‘a persistent whole formed from a set of parts that is structured by the relation between these parts’ (Elder-Vass 2010, 17). *A property* is an intrinsic aspect of an entity, which means that an entity possessing properties must have abilities to causally influence the world. Hence, ‘property’ is a synonym for ‘causal power’ (Elder-Vass 2010, 17). Elder-Vass (2010, 20) holds that there is an *emergence* relation between structures and individuals composing them. Hence, a social structure, as a whole, possesses emergent properties. *Emergent properties* are properties owned only by the whole not by its parts.¹⁰⁹ With reference to these premises, structures possess causal powers beyond individual properties. Emergent properties, first, show that social structures have causal powers that cannot be reduced to the abilities possessed by

‘Emergence’ describes the relationship between the whole and the constituents. In this case, the whole having emergent properties means that the whole have powers to influence its constituents.

¹⁰⁹ Emergent properties are distinguished from resultant properties: the latter, but not the former, are properties of a whole that are possessed by its parts in isolation or in an unstructured aggregation (Elder-Vass 2010, 17).

individuals in this group. Secondly, social structures' possession of emergent properties presupposes social relations between individuals.

In terms of the features of interactions internal to social structures, Elder-Vass classifies social structures into two groups: one is interaction groups, and the other associations. Unlike associations, interaction groups are 'often relatively short-lived interactions, with no necessary commitment of the parties to each other, or longer term persistence of interaction' (Elder-Vass 2010, 146). An interaction group possesses emergent properties and thus has its own causal power. Take a queue outside a box office for instance, the emergent properties of this whole have causally contributed to a persons' realisation that there is a queue, and their decision of where to queue (Elder-Vass 2010, 148). Also, this queue serialises access to the service, and thus reduces the 'potential conflict and stress that might otherwise be generated in such a situation' (Elder-Vass 2010, 148).

An association is marked by some norms. The power of an association is shown in its downward causation with its parts: the impact of norm enforcement on the members in this association is stronger than that on persons who do the same behaviours but not feel commitment to this group (Elder-Vass 2010, 151). Organisations are a special type of

association. They are characterised by the relations between individuals who constitute organisations. The relations are defined in terms of the roles occupied by individuals.

Elder-Vass provides an example of a group of singers: ‘Each singer has a different role in the group, defined both in general terms (lead, tenor, baritone and bass) and by the specific part they must sing in any given song’ (2010, 154). Elder-Vass states that if singers perform their roles in some situation, a group then will give rise to a musical performance. This is ascribed to the emergent properties of a singers’ group, because isolated individuals cannot do this by themselves.

To summarise, a social structure is a mechanism composed of related individuals. Hence, the operation model of it *is* the pattern of the individuals’ interaction. Emergent properties possessed by this mechanism have power producing effects. Therefore, there are causations resulting from these properties. Elder-Vass *states that the exercise of emergent properties depends on the related individuals’ actions; that is, one structure does not have effects unless it causally influences activities bringing about these effects.* As a consequence, in Elder-Vass’s theory, the question, ‘how do social structures have effects?’, is reduced to how social structures causally influence agents’ actions.

Secondly, as I have already argued, Bhaskar's theory lacks consideration of the issue that how social structures causally influence social actions. It is true that Bhaskar's concepts of cause and causal statement support the notion that social structures are causes of social actions. As a consequence, a causal statement, 'social structure X is the cause of social action Y', is justified. This, however, does not answer the question that how social structures make differences to social actions. Bhaskar could state that social structures make differences to social actions, in that they have causal powers: they are capable of influencing agents' actions. Nevertheless, this answer does not imply that the realization of structures' powers depends on social structures. This blind spot provides methodological individualism with the chance. Take Elder-Vass's theory for example, Elder-Vass could state that the explanation of the pattern and happening of individuals' interactions is in terms of social structures taken as a whole. However, this causal explanation is not completed, because it does not reveal the element facilitating the realization of structures' power. As a consequence, Elder-Vass' theory is compatible with the notion that the pattern of the individuals' interaction is produced through the influence of a structure upon the actions of each member. This influence is realised, because individuals have the ability to understand and to learn. For instance, a queue affects a person's decision of where to queue. This is impossible unless

individuals are able to collect outside information, understand social rules, and make decisions.

4.7 Conclusion

This chapter interrogates Bhaskar's philosophy of social sciences: the ontology of society, the concepts of agency and the theory of social sciences. I argued that Bhaskar is on the side of naturalism. Firstly, he states that social actions are causally explained in terms of reasons. As a consequence, unlike hermeneutics, Bhaskar approves the causal explanation of social actions. Secondly, in Bhaskar's view, social structures are similar to natural generative mechanisms. The operation of social structures is regular. Therefore, social structures could be scientifically studied as natural generative mechanisms. Because Bhaskar argues for the irreducibility of social structures and their influence upon actions, he is on the opposite side of methodological individualism. Notwithstanding his agreement of naturalism, Bhaskar recognises the particularities of society: it is activity- and concept-dependent. As a consequence, Bhaskar demonstrates that unlike natural scientists, social scientists cannot establish closed systems through which the operation mode of one generative mechanism is performed and captured. In addition, hermeneutics is required in social studies.

Essential to Bhaskar's account of social sciences is the transformational model of social activities. This model is a description of the relationship between social actions and social structures. Social actions, on the one hand, are constrained by social structure. On the other, however, they transform and reproduce social structures. Social structures are a pre-existence of social agents. Nevertheless, their persistence and transformation relies on agents' actions. The relationship between social structures and social actions inspires Bhaskar to enquire: agents do not aim to transform or reproduce society, why do their actions have these effects? To answer this question, Bhaskar conceptualises the position-practice system: positions are the places occupied by agents; practices are the activity done by agents in terms of their positions. Agents' actions reproduce and transform society, because agents occupy social positions and their actions are influenced by their positions. As a consequence, agents who occupy positions are in relations. Given this articulation, Bhaskar clarifies the mission of social disciplines.

Although I think Bhaskar's philosophy of social sciences is fruitful, there are some problems in it. Firstly, as I clarified in the previous sections, some of Bhaskar's arguments are ambiguous: for instance, the irreducibility of mental states to physical states. Secondly, I think my articulations in this chapter support my critique of the transcendental arguments

developed by critical realists. In a previous chapter, I identify a contradiction in critical realism. On the one hand, critical realism characterises philosophy through a philosophical method: transcendental arguments. On the other, however, transcendental arguments are a species of retroductive methods which are employed in substantive studies. Transcendental arguments differ from other retroductive methods. Their premises are the general features of social activities. They facilitate the construction of ontology. Therefore, compared with other retroductive methods, the abstract level of transcendental arguments is higher. As a consequence, transcendental arguments per se are the same as scientific methods. Therefore, I conclude that retroductive methods are universally applicable, because not only do they argue for the existence of objects but they are also available to explore objects. This conclusion is strengthened by this chapter. In a previous section, I articulate Bhaskar's concepts of scientific transcendental arguments. This method, in terms of Bhaskar, goes to social structures through social actions. It is based on Bhaskar's ontological descriptions of the general relationship between social structures and social actions. As a consequence, scientific transcendental arguments are generally applicable in social sciences.

If we go further, scientific transcendental arguments are subsumed by Bhaskar under the RRRE model of explanation, an abbreviation of resolution, redescription, retrodiction and elimination:

1. Resolution of a complex event into its components (causal analysis).
2. Redescription of component causes.
3. Retrodiction to possible (antecedent) causes of components via independently validated normic statements.
4. Elimination of alternative possible causes of components. (Bhaskar 1998, p. 142)

I think the 'RRRE' method is compatible with scientific transcendental arguments. Social activities are analogous with events. One social activity is influenced by many social structures. For instance, a campaign speech done by a politician is affected by political structure and language. Resolution clarifies aspects of this activity. Descriptions of these aspects are then provided in terms of agents' experience of them. Given these descriptions, scientists retroduce the definition of a social structure implied by the description of one aspect. This step is also named scientific transcendental arguments. My understanding is supported by Bhaskar's statements in *The Possibility of Naturalism*. He states,

Now the substantive employment of an essentially apodeictic procedure should occasion us no surprise. For transcendental arguments are merely a species of which retroductive ones are the genus, distinguished by the features that their *explanandum* consists in the conceptualized activities of agents and, as becomes an arena characterized by a multiplicity of causes, that they isolate necessary not sufficient conditions for it ... But in

view of this homology are we not in danger of collapsing the philosophy/ science distinction ... Thus a scientific (or substantive) transcendental argument may be distinguished from a philosophical (or formal) one according to the autonomous reality (or lack of it) of the object of the second-order discourse. (Bhaskar 1998, 55)

This passage suggests that retroductive arguments are scientific transcendental arguments, and philosophical arguments are transcendental arguments.

According to Bhaskar, the RRRE model of explanation is appropriate to all open systems.

Nature is an open system. Natural scientists take events as the starting point of their research and then reveal the natural generative mechanisms behind events. Because society is an open system, this model is also applicable in social explanation. Considering society is concept-dependent, a specific version of this method proceeds from concepts and captures the definition of social structures. Chapter Five will explore the application of this method in economics. Tony Lawson underlines the distinction between open and closed systems. Given these concepts, he criticises mainstream economic methodology. Instead, he states that economists should penetrate social structures by proceeding from social events. This method is another version of retroductive methods.

Thirdly, I argued that Bhaskar's theory is compatible with methodological individualism and hermeneutics. Firstly, Bhaskar is ambiguous about the question: how do social structures influence social actions? Methodological individualism might answer this question in terms of the rational choice principle. Hermeneutists states that the realisation of such guidance is mediated by an agent's conceptualisation of social norms. In both causes, the explanatory powers of social structures are weakened. The second reason is concerned with Bhaskar's ontology of society. His concepts of emergence are ambiguous. It is compatible which the composition notion of emergence which facilitates the reduction of the question that how social structures affect social phenomena to the issue of the causal influence of social structures upon social actions. This provides methodological individualists with an opening. Furthermore, because social structures are concept-dependent, hermeneutic methods are required in social sciences. In Chapter Five, I will demonstrate that Archer underpins the critique of methodological individualism and hermeneutics, because she emphasises the concept that social structures pre-exist social agents.

Chapter 5 Towards Sociology and Economics

5.1 Introduction

The philosophy of social science in critical realism intervenes in the social sciences. By ‘intervene’, I mean that critical realist philosophy of social science not only depicts what social scientists actually do but also reveals the problems of their practice.¹¹⁰ As a consequence, critical realism, to some extent, aspires to direct social scientific studies. This relationship of philosophy to social sciences is demonstrated in Bhaskar’s theory. In *The Possibility of Naturalism*, Bhaskar states that philosophy is the underlabour of science. Philosophy of science starts from what natural sciences actually do, and then reveals the ontological conditions of natural sciences. Therefore, philosophy does not tell natural scientists the way they ought to take in exploring nature (Bhaskar 1998, 17). Nor does it

¹¹⁰ Andrew Collier provides a clear articulation of the difference between the relationship of philosophy with natural sciences and with human sciences in the Chapter Seven of *Critical Realism: An Introduction to Roy Bhaskar’s Philosophy*. As he states, ‘A word on the history of the relations between philosophy and the sciences is in order here. It is often remarked that philosophy once covered the subject-matter of all the sciences, and that as the sciences became truly scientific, they declared independence and went their own way, rapidly losing the marks of their origin. In the case of the human sciences, however, while they may have declared their independence in the loudest tones, they continue to be guided (one might say “trapped”) in each case by some approach borrowed from philosophy at the moment of their birth, and thereafter taken for granted. The so-called “immaturity” of the human sciences is not a matter of their youth - they have been around for about as long as the natural sciences. But they have seemed unable to sever their umbilical cords, substituting an unconsciousness of their philosophical assumptions for an independence of their philosophical origins. The history of economic theory, for instance, while it is marked by a number of theoretical breaks, is also marked by the philosophical character of those breaks’ (Collier 1994, 207-209).

interfere with the results of the natural sciences. Considering social sciences, Bhaskar still insists that his philosophy is the underlabour of social sciences.¹¹¹ Nevertheless, he also spells out that philosophy of social science will alter the way we study society (Bhaskar 1998, 18). In other words, philosophy does not clarify what social scientists actually do, but notifies them of what they should do. In this sense, philosophy is not merely an observation of social scientists' practice. Rather, it intervenes in social scientific studies.¹¹²

This chapter will clarify the intervention of critical realism on sociology and on economics. I will choose the theories developed by Margaret Archer and by Tony Lawson as subjects. For one thing, both of them are influential figures in their fields. Archer is a sociologist who challenges methodological individualism, structuralism and structuration theory through her morphogenetic approach. Lawson is an economist who provides radical attacks on orthodox (or mainstream) economics. For another, their theories are essential to the topic of the next chapter. In Chapter Six, I will explore critical realists' reading of Marx's social theory, and

¹¹¹ Bhaskar states, 'Philosophy, indeed, can neither anticipate the results nor guarantee the success of a naturalistic science of society; what it can do is to specify the (ontological) conditions that make, and the (epistemological) conditions that must be satisfied, for such a project to be possible. Its realization is, however, the substantive task, and contingent outcome, of the practice of science itself' (1998, 7).

¹¹² The meaning of 'underlabour' is thus ambiguous: to what extent does philosophy intervening in social sciences play the role of underlabour but not master?

their debate with Marxists. Steve Fleetwood's interpretation of *Capital* will be an example to argue for the difference between Marx's method and the critical realist method. As Fleetwood clarifies, his strategy is influenced by Bhaskar's philosophy of social sciences, Lawson's economic theory and Archer's morphogenetic approach. As a consequence, there is a need to clarify what Archer and Lawson say in their fields.

Archer and Lawson choose and reinforce different aspects of Bhaskar's theory. The first section of this chapter will focus on Archer's morphogenetic approach. Archer highlights the notion that social structures pre-exist and causally influence social agency. This notion is connected with Bhaskar's concepts of emergence. As I demonstrated in the previous chapter, the concepts of emergence in Bhaskar's theory have two senses: the one is synchronic and the other is diachronic. Archer puts emphasis upon the latter, whereas Elder-Vass on the former. Compared with Elder-Vass's suggestion that critical realism potentially supports methodological individualism, Archer's strategy of anti-methodological individualism is stronger. To argue this, section 5.2.1 will clarify Archer's critique of conflation theories: downward conflation theory, upward conflation theory and central conflation theory. Archer's critique of them presupposes her emphasis on temporality, which is based on the causal influence of social structures upon social actions. Following this section, I will provide

a general depiction of Archer's morphogenetic approach. This approach has two ontological presuppositions: analytical separation and temporal distinction. The former does not imply the latter. I will put my emphasis upon temporal distinction. In section 5.2.3, I will clarify and reveal the concepts implied by this distinction. I will finally argue that Archer's strategy implies that social structures per se have independent influences upon social phenomena. These influences could be analysed separately from structures impacting on social actions.

Tony Lawson deploys Bhaskar's concept that society is a particularly open system. To be specific, like nature, society is a domain in which many mechanisms (or social structures) regularly operate. A pattern of events is produced by the operation of one structure.

Nevertheless, one mechanism's operation is interfered with by others in society. Therefore, rarely could we capture event regularities in a society. To this extent, society is open. Unlike nature, however, the reproduction and transformation of society depends on agents' actions.

As a consequence, Bhaskar states that society is activity and concept dependent. Therefore, distinguished from the natural sciences, social sciences cannot establish closed systems in which a pattern of events produced by one generative mechanism is performed through excluding interference. These concepts are employed by Lawson. Firstly, he criticises mainstream economics, because its method is not applicable to open systems but to closed

ones. Secondly, Lawson develops the method of retrodution and contrast explanation. He argues that these two methods are available in social scientific explanation. Nevertheless, I think Lawson's repudiation of mainstream economics is problematic. Lawson argues that the methods employed by mainstream economics presuppose atomism but not empiricism. Section 5.3.1 will firstly demonstrate that empiricism is implied by the linkage between deductivism and atomism. Hence, Lawson's conclusion that it is atomism but not empiricism that is presupposed by deductivism is implausible. Given this idea, secondly, I think a meaning referential theory is presupposed by Lawson. This presupposition is compatible with the philosophy of language held by logical positivism. Because Lawson does not have a clear standpoint on the theory of meaning, his theory is potentially logical positivist, though this is a philosophy he rejects. Finally, the rejection of the deductive-nomological model of explanation is not completed through adherence to a realist ontology. In Section 5.3.2, I will analyse Lawson's proposition: a closed system is a necessary condition for the employment of the deductivist method. This proposition is invalid, whether from an ontological perspective or from a methodological one. For one thing, Lawson's distinction between open systems and closed systems is challenged. For another, the method suggested by Lawson is compatible with formalistic modelling.

5.2 Margaret Archer's Morphogenetic Approach

Compared with Bhaskar's, Archer's attitude towards the relationship between social structures and social agency is more obvious. As I argued in Chapter Four, Bhaskar's theory is potentially open to methodological individualism and hermeneutics because of its ambiguities. Archer, by comparison, identifies the mutual causal influence between social structures and social agency. Especially, she highlights the temporality implied by this relationship. Accordingly, Archer puts forward the morphogenetic approach. This approach is distinguished from conflation theories. To clarify the particularity of the morphogenetic approach, I will first analyse Archer's critique of conflation theories.

5.2.1 Archer's Critique of Conflation Theories

In *Culture and Agency*, Archer states,

Fundamentally what is wrong with conflationary theorizing is that it prevents the interplay between 'parts' and 'people' from being the foundation of cultural dynamics. This is because in every version of the Fallacy, the elision of the two elements withdraws any *autonomy* or independence from one of them, if not from both. (Archer 1996, xv)

Conflation theories are classified into downwards conflation, upwards conflation and central conflation. Compared with Archer's morphogenetic approach, they, firstly, cannot discuss the

interplay between social structures and agency. As a consequence, they represent one-dimensional theorising (Archer 1995, 6). Secondly, they have shorter time-referents (Archer 1995, 79). This section will show how each of these conflation theories are rebutted by Archer. Before analysing her critique of them, I will elucidate the meaning of ‘autonomy’ and Archer’s concepts of time (more detailed arguments will be given in the next section). They are important to review her critique of conflation theories.

In Archer’s view, ‘autonomy’, firstly, is bound up with the concept of emergent properties, which argues for the ontological status of both social structures and agents. A property is emergent if two conditions are satisfied. Firstly, it originates from anterior properties over time (Archer 1995, 14). Secondly, the strata of emerged property are different from the level of the properties producing them As Archer (1995, 14) states, ‘Once emergence has taken place the powers and properties defining and distinguishing strata have relative autonomy from one another’. Therefore, finally, emergent properties are able to exert independent causal influence in their own right (Archer 1995, 14). Take social structures for instance, the autonomy of social structure means that social structures possess structural properties which are capable of causally influencing social actions in their own right.¹¹³ Following this,

¹¹³ As Archer says, ‘Systemic properties are viewed as the emergent or aggregate consequences of past actions. Once they have been elaborated over time they are held to exert a causal influence upon subsequent

‘autonomy’ stands for the explanatory autonomy of social structures and social agency. To

quote Archer,

If, as my initial assertion maintained, an adequate theoretical stance is one which acknowledges the interplay between structure and agency, then this has to be predicated upon some autonomy and independence being assigned to each. (Archer 1995, 80)

Archer argues for the ontological irreducibility of structural properties and individual properties. She also states that structural properties causally influence social agents in their own right, as well as that individual properties influence social structures. Given these concepts, Archer states that the analysis of the influence of social structures upon social agents is separated from the explanation of the effects on social structures in terms of social agents.

In terms of Archer’s morphogenetic approach, the identification of time instants and time span is based on the causal relationships, including the interplay, between social structures and agency.

interaction... system for example). From this follows a conviction that 'the properties of social structures and systems ... must be taken as given when analysing the processes of action and interaction' because of the conditional influence exerted by the former on the latter. In short, when we talk about structural properties and their effects from the morphogenetic perspective, we are also endorsing the realist notion of emergence and its causal powers' (1995, 90).

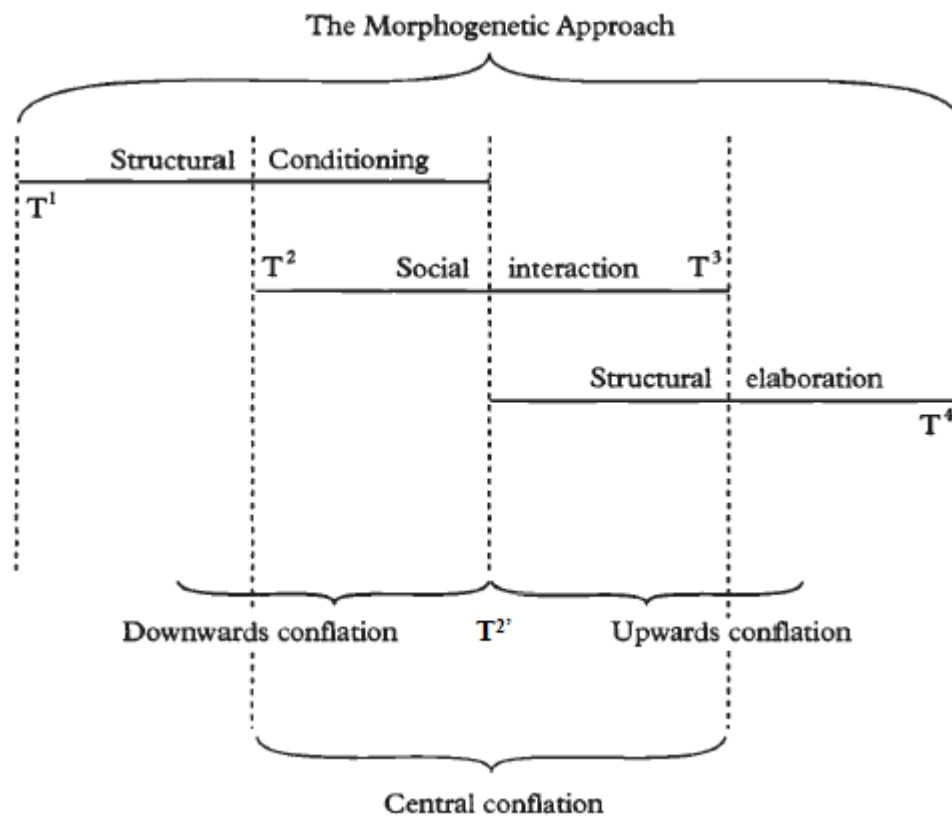


Figure 1: Archer's Model of a Morphogenetic Cycle (Archer, 1995, P. 82)

(T^{2'} is added)

This figure is about a morphogenetic cycle. It illuminates that the structuring of a structure completes at T⁴ (Archer 1995, 76). This cycle has three phases: structural conditioning, social interaction and structural elaboration. T¹, T², T^{2'} and T³ characterise different instants of the

cycle. T^1 - T^2 shows that a given structure (S^1) predates actions (A^2), which start at T^2 .¹¹⁴

These actions change S^1 and contribute to the elaboration of a new structure during T^2 and T^3 .

As the figure demonstrates, during this period, the condition of social structures on social

actions does not disappear immediately: it stops at T^2 .¹¹⁵ In Archer's theory (I will analyse

this in the next section), time instants (T^2 , T^3 and T^4) and the order of these instants are

identified by virtue of the states of the social structure (S^1), social actions (A^2) and the

elaboration of another structure. Furthermore, T^1 is involved because there is a causal relation

between S^1 and A^2 . This depiction of time span provides a reference frame for Archer to

review conflation theories. Archer's critique of conflation theories presupposes that time span

depends on causation.

5.2.1.1 Downwards Conflation Theory

Downwards conflation theory is a version of epiphenomenalism. It has various versions:

technological determinism, economism, structuralism or normative functionalism (Archer

¹¹⁴ As Archer states: 'The initial structural distribution of a property (i.e. the consequence of prior interaction) influences the time taken to eradicate it (five years versus two years for the outer and inner curves), through its effect on the population capable of transforming it' (1995, 77).

¹¹⁵ To quote Archer, 'What the diagram serves to highlight is that the initial structural influence does not peter out immediately, even given a collective determination to transform it (indeed here the major burden of illiteracy is dispersed only towards the end, in the last or penultimate time interval). In other words it takes time to change any structural property' (1995, 78).

1995, 81). Despite their differences, these theories are expressive of the notion that agents' properties are determined by social structures. Accordingly, agents do not possess emergent properties. Their actions, thus, are determined by social properties. Hence, only structures are *explanans* in explanations; agency does not have explanatory autonomy. As a consequence, downwards conflation theory cannot consider the interplay between structures and agency.

In downwards conflation theory, firstly, the elaboration of one social structure at present is attributed to the given tendency internal to this structure (Archer 1995, 83). Though the realisation of the effects of this tendency requires social actions, human agents have no autonomous influence on the process of social transformation. Consequently, downwards conflation theory rules out the exploration of the causal influence of agency upon social structures. Furthermore, in terms of downwards conflation theory, the origin of social structures counts on some impersonal and mysterious powers. The proponents of this approach state that social actions and agents' properties are side-products of social structures. This implies that social structures pre-exist social actions. Hence, the origin of social structures is not ascribed to agents' actions. As a consequence, 'social structures are never admitted to have social origins' (Archer 1995, 83). Social theories hand over their positions

to other theories, such as evolutionary theory, in explaining the creation of social structures (Archer 1995, 84).

According to Archer, the time-referent of downwards conflation theory is short. She states, ‘there is never anything to examine after T^2 other than the imprint of structure upon agency’ (Archer 1995, 82). In terms of Archer’s morphogenetic approach, three things happen since T^2 . Firstly, the condition of one social structure on social actions ends at $T^{2'}$. Secondly, social agents exert this social structure from $T^{2'}$ to T^3 . Finally, a new social structure continues to elaborate until T^4 . Because downwards conflation theory claims that social agents are incapable of bringing about the change of social structures, it does not refer to the situation between $T^{2'}$ and T^3 . I think Archer’s conclusion presupposes the concept that the time span from $T^{2'}$ to T^3 depends on the effect of social agency on social structures. Otherwise, she cannot make the statement that the time referent of downwards conflation theory is narrower than analytical dualism.

5.2.1.2 Upward Conflation Theory

Upwards conflation theory is represented by methodological individualism. Archer (1995, 84) states, ‘the basic charter of all versions of upwards conflation... is methodological

individualism. Its prime injunction is to view so-called structural properties as reducible to the effects of other actors, which are in their turn always recoverable by agency'. In *Realist Social Theory: The Morphogenetic Approach*, methodological individualism is both a result of ontological individualism and a version of epiphenomenalism. The former one rejects the ontological status of social structural properties. Archer (1995, 84) states, 'to upwards conflationists it is always a major descriptive error to treat structural properties as having ontological status of facts rather than facticity'. In terms of epiphenomenalism, however, social properties, notwithstanding its existence, are the side-product of individual actions; they do not have causal powers of their own. Despite this difference, both ontological individualism and epiphenomenalism argue that the causal explanations of social phenomena are in terms of only individual properties. To quote Archer,

It follows that what constitutes our social context are things that the 'people concerned' do not *want* to change/do not *know* how to change/do not *think* about changing. (Archer 1995, 85)

Therefore, both ontological individualism and epiphenomenalism cannot discuss the interplay between social structures and agency.

In Archer's view, upwards conflation theory is inadequate to explain the variety and transformation of individuals' dispositions. Firstly, Archer (1995, 86) states that some individual dispositions must be inferred to be prior to all social contexts; they cannot be explained by any social contexts. Therefore, individualists either insist that individual dispositions are permanent or attribute the transformation of some persons' features to other persons. Archer demonstrates,

"The real oddity of the reductionist case is that it seems to preclude a priori the possibility of human dispositions being the dependent variable in an historical explanation - when in fact they often or always are". It is as if, in explaining any contemporary phenomenon, we were constantly starting afresh since it is assumed that we can detect dispositions which influence the explanandum without their being dependent upon it or on other earlier social phenomena. It was of course in response to this charge that the attempt was made to allow for environmental influences, provided these could be construed as the "innocent" effects of (contemporary) other people, which I have argued cannot always be done." (Archer 1995, 85-86)

Furthermore, Archer (1995, 86) states that in terms of individualism, both the past and the future are cut off from the present. This conclusion is based on her conception of time.

Archer states that time span depends on causal relations between social structures and agency.

Firstly, there is a severance between the present and the past, in that individualism cannot refer to T^1 . In terms of Archer's theory, the identification of T^1 is based on the causal influence of one structure upon actions which start at T^2 . If a social structure causally

influences social actions, then it predates actions. Therefore, a time point, T^1 , is confirmed to be prior to T^2 . Individualists, however, deny that agency is causally influenced by social structures. As a consequence, actions starting from T^2 are not under the conditioning influence of social structures. Inasmuch as Archer states that the time span between T^1 and T^2 presupposes a causal relationship from social structures to agency, it is concluded that individualism cannot refer to T^1 . Furthermore, ‘not only is the historical conditioning of current action discountenanced (unless it can be “personalized”), but also too the future is cut off from the present’ (Archer 1995, 86). This disconnection between the present and the future is attributed to T^4 being excluded from the individualists’ study scheme. In terms of Archer’s strategy, T^4 demonstrates that social elaboration is a consequence of social interaction finishing at T^3 . Hence, it is after T^3 . Second, T^4 is linked with the next morphogenetic cycle. Archer states,

Simultaneously, however, structural elaboration restarts a new morphogenetic cycle, for it introduces a new set of conditional influences upon interaction which are constraining as well as facilitating. T^4 is thus the new T^1 , and the next cycle must be approached afresh analytically, conceptually and theoretically. (Archer 1995, 79)

This indicates that a social structure (T^4), the result of social interaction (T^2 - T^3), becomes consequential in its own right; it possesses emergent properties, which represent new structural influences upon subsequent actions. Albeit they state that structural elaboration, as

the consequence of social interaction, is beyond T^3 , individualists deny that a new social structure (T^4) is able to influence tomorrow's agents. Hence, the situation at $T4$ is excluded from their exploration (Archer 1995, 86).

5.2.1.3 Central Conflation Theory

Central conflation theory states that neither social structures nor agency is epiphenomenon of each other. Instead, 'what happens is that autonomy is withheld from both levels' (Archer 1995, 81). Hence, like upwards conflation theory and downwards conflation theory, this theory precludes the exploration of the interplay between social structures and agency.

Central conflation theory is typified in Giddens' structuration theory. Giddens (1986, 2) states that the subject of social sciences, according to structuration theory, is social praxis ordered and temporal-spatially crossed. Social praxis is a flowing process which combines two aspects: social structures and agency. Therefore, the subject matter of social sciences is a process but not social events. Social structures are rules and resources which are out of time and space. The duality of social structures means that, firstly, structures constrain and enable social actions. Secondly, they are reproduced and transformed by social actions. From the standpoint of the process of social praxis, this process is *reproducing*, or *transforming*, social structures; and *simultaneously*, it is *being* constrained by structures. Hence, in Archer's view,

Giddens expresses the notion that social structures are both the media and the outcome of social praxis; that is, 'this society because of these people here present' (Archer 1995, 85).

Archer maintains that Giddens' strategy of social explanation is problematic. Firstly, the time referent of structuration theory is restricted to the T^2 - T^3 span (Archer 1995, 87). This conclusion, I think, is based on Archer's view of time. Hardly does Giddens agree that his scheme does not refer to T^1 and T^4 . Giddens (1986, 132), following time-geography, holds that the trajectory of time-space intersects in day-to-day activities. Hence, time is involved and constructed in the process of social praxis. It is internal to social praxis, rather than external to it. In terms of Giddens' theory, social praxis is a process from the past to the future. As a consequence, the time instants it refers to include T^1 and T^4 . Archer's conception of time is different from Giddens'. As I mentioned above, according to Archer's theory, the identification of time instants, as well as the expansion of time scale, is not based on social praxis, but on the causation between social structures and social actions. Hence, the identification of T^1 presupposes the causal influence of a pre-existing social structure on social actions starting from T^2 . The reference of T^4 relies on unintended causal consequence of social interactions.¹¹⁶ With reference to these premises, Archer is for the notion that T^1

¹¹⁶ The new structure elaborated at T^4 is the unintended consequence of the social actions which stop at T^3 . As Archer states, 'In other words, they (methodological individualists) cannot accept that unintended consequences

and T^4 are impossible to be referred to if there are only social interactions. With reference to this premise, if only social interactions are under consideration in structuration theory, it is then concluded that Giddens cannot refer to T^1 and T^4 .

Archer's position on time theory concerns her critique of Giddens' ontology. She condemns Giddens for reducing the ontological status of social structures. This critique presupposes that an existence is characterised by its time-space situation. In terms of Giddens's theory, social structures are beyond time and space. One social structure exists, 'as time-space presence, only in its instantiations in such practices and as memory traces orienting the conduct of knowledgeable human agents' (Giddens 1986, 17). This conception corresponds to Giddens' time theory: time is internal to day-to-day activities. Accordingly, unless involved *in* social activities, social structures are irrelevant to time and space. Archer, on the contrary, confirms that social structures, *in themselves*, are temporally located. Attributing a causal relationship between a social structure and social actions implies that one social structure *pre-exists* some social interactions.

from past action, may, at T^4 become consequential in their own right – as emergent properties or aggregate effects which represent new structural influences upon subsequent action' (1995, 86).

Apart from reducing the ontological status of social structures, the explanatory capability of Giddens' scheme, in Archer's view, is restricted. Giddens's scheme of social explanation revamps the 'linguistic analogy'; he states that all social processes are isomorphic to linguistic praxis (Archer 1995, 73-75). As a consequence, it is concluded that, firstly, all social activities instantiate rules or resources. Secondly, a social activity presupposes all aspects of one social structure, which is taken as a whole (Archer 1996, 77). Take writing 'bus' for instance, in the process of writing 'b', 'u' and 's', the spelling of this word orders the procedure of this activity. The meaning of this term concerns its utilisation in the construction of a sentence. Further, an actor's acknowledgement of this makes this activity what it is. In addition, this activity not only performs the spelling and meaning of 'bus', but also links with the whole linguistic structure, the constituents of which are internally related. Hence, this activity contributes to the reproduction of the English language as a whole. Thirdly, the 'linguistic analogy' implies that social structures are internally coherent. One activity cannot presuppose two elements that contradict with each other; this is logically invalid. Hence, if each activity presupposes all the facets of one social structure, it is then argued that there is no contradiction between these facets. In other words, this structure is internally coherent.

The explanatory capability of structuration theory is restricted. Firstly, Archer repudiates the linguistic analogy. She states that social activities are not bound up with the application of rules and resources. To quote Archer,

Action is not really so tightly integrated by these social codes: not only may some of the smallest items of behaviour be irrelevant to 'the code', certain larger ones may also be trivial, mutually cancelling or self-contained in their effects, while still other actions can produce far-reaching aggregate or emergent consequences - yet these different possibilities remain undifferentiated in this approach. (Archer 1996, 88)

Further, Giddens does not provide insights into the complexity of social structures. He presupposes the internal coherence of social structures. Hence, the discussion of the contradictions between constituents of social structures is precluded. This concept is rejected by Archer. In *Culture and Agency*, she makes a distinction between 'Cultural System integration' and 'Socio-Cultural integration'. The former concerns the relation between ideas constituting a culture system, and the latter is about the social interactions between cultural agents (Archer 1996, xvii). The consistency internal to a cultural system is modelled on logical consistency. It is distinguished from causal relations between cultural agents (Archer 1995, 179). There is logical inconsistency in cultural systems. This incoherence is shown in the statements such as 'idea A contradicts with idea B'.¹¹⁷ It does not depend on the ideas

¹¹⁷ Archer states, 'There is *logical consistency*, that is the degree of consistency between the component parts of culture. This is a property of the world of ideas, of World Three, as Popper would put it; or, if preferred, of the

being possessed by agents, though agents are required for the cognition of those ideas.

Giddens' strategy does not capture the inconsistency of the cultural system, in that social structures presupposed by social activities must be internally coherent.

In addition, in terms of Giddens' scheme, the changeability of the components of social structures is not differentiated. Rules and resources, in themselves, are lifeless. Unless being instantiated in social praxis, they can neither constrain nor enable social activities. The instantiation of them relies on modalities. Modalities are the means through which structures are translated into actions. They include interpretative schemes, norms and facilities.

Consequently, it depends on 'the power of agency and not the nature of properties... the properties themselves are not differentially mutable' (Archer 1996, 88).

Similarly, Archer (1996, 90) maintains that the concept, 'social structures are equally changeable', is a counterpart of another view: at the level of social interaction, 'actors *enjoy a constant* degree of transformative freedom'. Archer attributes this to Giddens' conception that 'change, or its potentiality, is thus inherent in all moments of social reproduction' (Giddens 1979, 114). Social structures, as I mentioned above, do not function unless

contents of libraries. In fact we utilize this concept every day when we say that the ideas of X are consistent with those of Y, or that theory or belief A contradicts theory or belief B' (1996, xvii).

instantiated by social agents. Hence, resources and rules, in themselves, have no autonomous influence on social processes. Social change, as well as social reproduction, concerns only social interaction between agents. Furthermore, according to Giddens, social activities require the application of knowledge. They require social actors to know a great deal of what they are doing (Giddens 1979, 215). The application of knowledge, firstly, presupposes interpretative schemes, 'the modes of typification incorporated within actors' stocks of knowledge, applied *reflexively* in the sustaining of communication' (Giddens 1986, 29). Secondly, Giddens states that there are other things, such as conditions of actions, which actors do not know but influence social praxis. These elements, reflexivity and unknown conditions, are involved in social reproduction. They also demonstrate the possibility of social transformation: an agent's capabilities contribute to his further recognition of conditions and unintended consequences of social praxis. This recognition transforms social praxis because it is intrinsic to social praxis.

Finally, Giddens does not discuss the interplay between social structures and agency. This silence is due to the fact that social structures cannot be identified to be the pre-existence of social actions. The pre-existence of social structures are implied in their causal influence on social interaction. Firstly, in Giddens' view, time and space is involved in the process of

social praxis. Rules and resources are outside time and space. Hence, they do not exist before social praxis. Secondly, social structures which are instantiated and thus temporal-spatially related, are memory traces. There is no causation between memory traces and social interactions. For one thing, the instantiation of social structures is not causation; it concerns interpretative schemes. For another, instantiated social structures are not causes of social activities. Therefore, they do not exist prior to social praxis, rather are constituting and internal to this process. Take social transformation for instance, notwithstanding Giddens' admission that social rules make transformation possible, he rejects that there are rules directing social transformation. With reference to social transformation, social rules only identify a matrix of social activities, in that they contribute to the qualitative identity between activities. Firstly, agents' activities, which compose a whole social praxis, are constrained by social rules. Such constraining depends on interpretative schemes owned by agents. Secondly, social rules are transformational, in that they are exemplified in *indefinite* empirical contents. Hence, neither is there a rule that governs the *whole* process of social transformation, nor can we say anything definite about the constraining influence of social structures (Archer 1996, 84).

5.2.2 Analytical Dualism

To study the relationship between structure and agency, Archer (1995, 5) puts forward a ‘morphogenetic approach’: ‘The “morpho” element is an acknowledgement that society has no pre-set form or preferred state: the “genetic” part is a recognition that it takes its shape from, and is formed by, agents, originating from the intended and unintended consequences of their activities’.

Unlike conflation theories, the morphogenetic approach, firstly, explores a society by studying the *mutual causal influences* between social structures and social agency. Hence, neither social structures nor social agency lose their explanatory autonomy. Secondly, the time referent of the morphogenetic approach is longer than conflation theories. The morphogenetic approach is based on analytical dualism, which combines two principles: (1) *that* structure must *predate* actions transforming or reproducing it; (2) *that* structural elaboration must *postdate* actions transforming it (Archer 1995, 15). Analytical dualism defeats the one-dimensional study approach. It explains the interplay between structures and agency, that is, their causal influence on each other. In her reading of Bhaskar’s theories, Archer says,

The ... account of the interplay between social structures and human agents is now required. Bhaskar recognizes this, namely that mediating concepts are called to explain

how structure actually does impinge upon agency (who and where) and how agents in turn react back to reproduce or transform structure (giving rise to morphogenesis or morphostasis in my terms). (Archer 1995, 152)

In discussing the causal influences between them, structures and agency are considered to be temporally distinguished. If one structure causally influences agents, it then predates the effect brought about by it.

Analytical dualism is based on two ontological premises: analytical separation and temporal distinction. The former underlines that structures and agency, in principle, can be analysed separately, because they are two different kinds of *entities having* their own emergent properties.¹¹⁸ Saying that a structure and agency have emergent properties respectively means that the properties of a structure are irreducible to individual ones, and vice versa.

Take social structures for instance, a structure is an *entity*, which consists of *organised positions, but not of individuals*. Secondly, structures and agency ‘are neither co-extensive nor co-variant through time, because each possesses autonomous emergent properties, which

¹¹⁸ Archer argues that social structures are entities different from the agent. In her articulation of emergentism, Archer demonstrates that the particularity of emergentists consist in their admission of the existence of unobservable entities, that is social structures. A social structure *has* emergent properties and is stratified and ordered (Archer 1995, 63-64). Because agents and structures have their own emergent properties, they are analytically separable in principle (Archer 1995, 66). Agents and social structures are two different kinds of entity (Archer 1995, 16).

are thus capable of independent variation and therefore of being out of phase with one another in time' (Archer 1995, 66). As a consequence, although the states of individuals facilitate the knowledge of social structures, the exploration of social structures cannot be reduced to the exploration of agents. Thirdly, it shows that structures and agency possess causal powers respectively. Therefore, they are *capable of* affecting each other. This is the precondition to explain the interplay between structures and agency.

The temporal distinction means that 'it is justifiable and feasible to talk of pre-existence and posterity when dealing with specific instance of the two (structure and agency)' (Archer 1995, 66). Despite being necessary, analytical separation is insufficient for analytical dualism in that it does not imply the temporal distinction between structures and agency. Archer notices that some scholars, who support the ontological separation between structures and agency, do not make a temporal distinction between them in practical studies. She ascribes this to a cognitive omission: 'Until analytical separation is *acknowledged* to entail temporality rather than simultaneity, realists tend to go into structure-agency issue in an approach similar to Giddens' (Archer 1995, 67). Giddens does not acknowledge that social structures and agency are temporally distinct, although he recognises their ontological difference. Nevertheless, the disconnection between analytical separation and temporal distinction is not an epistemic issue.

For instance, two cars, *A and B*, are ontologically distinguished. Firstly, they are two entities. Secondly, they have their own causal powers. Because of these causal powers, thirdly, there can be an interplay between them. Hence, they are analytically separated. However, it implies neither their temporal distinction nor the importance of such distinction in the study project. Firstly, they can both exist at the same time. Secondly, despite the fact that one car predates the other, it does not imply that the pre-existence of this car is important. Thirdly, the pre-existence of one car, *A* for instance, does not imply that there *is* an *interplay* between the two cars. Herein leaves a question: what is the precondition of the temporal distinction?

5.2.3. The Conditions Presupposed by the Temporal Distinction

In this section, I will address the question previously put forward. Firstly, I will demonstrate that in order to introduce the temporal distinction into a study scheme, a causal relationship between structures and agency is in demand. Analytical separation is thus required for this distinction. Furthermore, the causal relationship between structures and agency is insufficient to argue that a structure predates actions. Consequently, there is a need to specify what this structure pre-exists. Thirdly, analytical dualism avoids one-dimensional theorising. For one thing, it contributes to the exploration of the mutual causal influence between structures and agency. For another, it opens to the conclusion that social structures possess powers to have

independent influence on the social process and this influence can be analysed separately from the effect of social structures on social agency.

5.2.3.1 The Causation between Social Structures and Social Actions

I will argue my notions by analysing one figure provided by Archer:

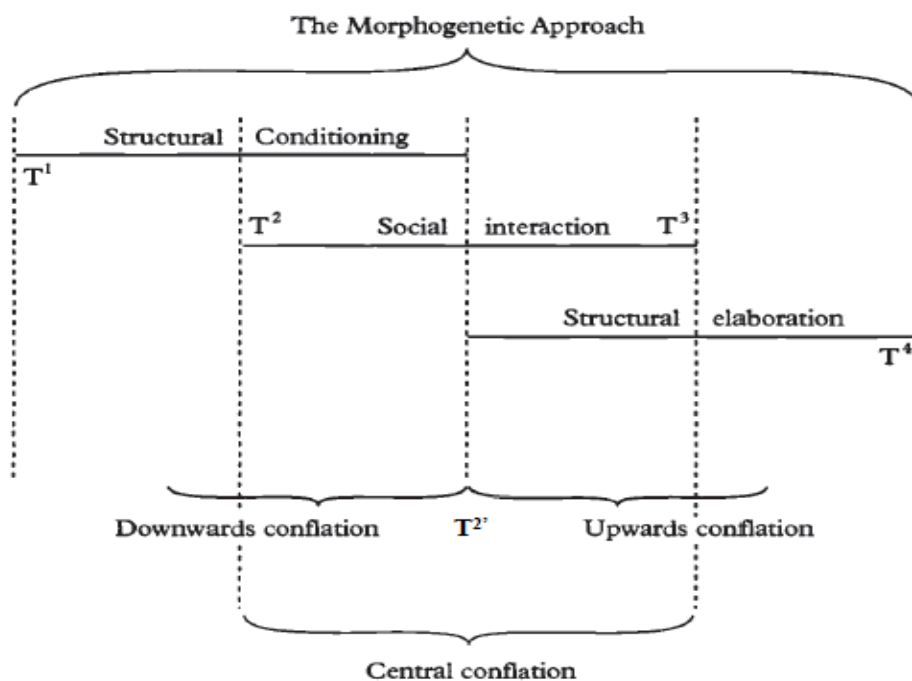


Figure 1: Archer's Model of a Morphogenetic Cycle (Archer1995, 82).

(T^{2'} is added)

As I mentioned in section 5.2, this figure stands for a morphogenetic cycle, which demonstrates the process of the elaboration of a new structure. It consists of three phases: structural conditioning, social interaction and structural elaboration. T¹, T², T^{2'}, T³ and T⁴ characterise different instants of the cycle. T¹-T² indicates that a given structure (S¹) predates the actions (A²) starting at T². S¹ results from a previous cycle.¹¹⁹ In Archer's (1995, 90) view, it is the consequence of past actions (not A²). Archer (1995, 78) states that the impact of S¹ upon actions continues from T² to T^{2'}. Actions (A²) change S¹ and contribute to structural elaboration. During T² and T³, there is social interaction between social agents.¹²⁰ T^{2'} indicates the starting point of structural elaboration. The time span between T³ and T⁴

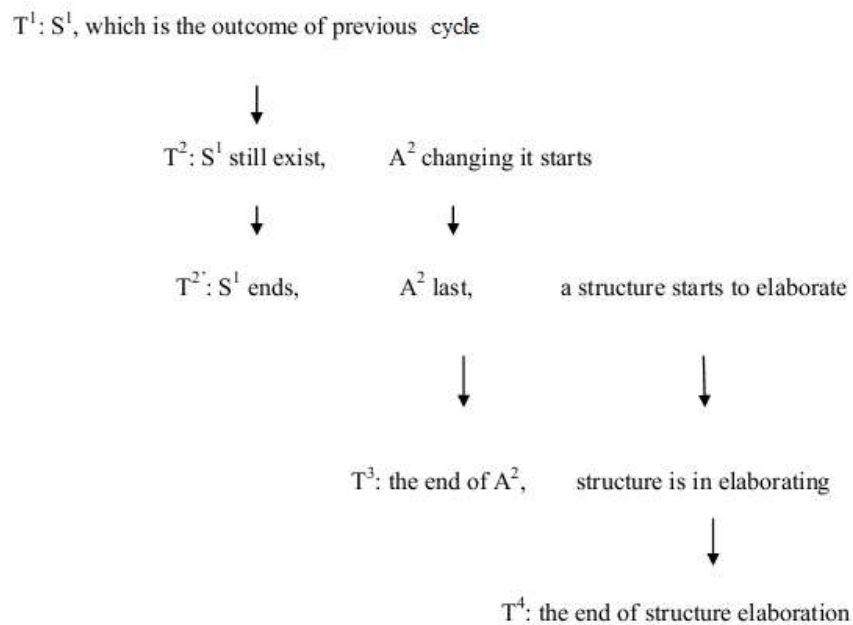
¹¹⁹ This idea is supported by Archer's notion that T⁴ is the next T¹ when the elaborated structure exerts influence on subsequent actions (Archer 1995, 79).

¹²⁰ Social interactions are between agents. Archer makes a distinction between the concept of interaction and interplay. The former stands for the relations between social agents, and the latter for the relationship between social structures and social agents. She states, 'Construed in this manner, then, the crucial linkage to make and to maintain is not between the "micro: and the "macro", conceived of as the small and interpersonal in contrast to the large and impersonal, but rather between the 'social' and the "systemic". In other words systemic properties are always the ("macro") context confronted by ("micro") social interaction, whilst social activities between people ("micro") represent the environment in which the ("macro2) features of systems are either reproduced or transformed. But in neither the structural nor the cultural domains is this necessarily to talk about the big in relation to the small: for emergent properties can figure at all "levels". Yet since they only arise from and work through social interaction, then this crucial interplay requires examination at any level' (Archer 1995, 11). This articulation informs that firstly social interaction is at micro-level; it is between people. Secondly, interplay is between structures (macro) and agency (micro). It arises from social interaction.

concerns the intended or unintended consequences of A^2 , which stops at T^3 (Archer 1995, 86).

It also demonstrates that $A^{2'}$'s consequences postdate it.

With reference to this interpretation, I think another figure could be formulated:



(Figure 2)

Three subjects are involved in the process of the elaboration of a structure. Firstly, there is structure S^1 which exists from T^1 to $T^{2'}$. Secondly, here we meet A^2 . It starts at T^2 , continues at $T^{2'}$ and ends at T^3 . Finally, Archer considers the elaboration of a new structure. As the figure demonstrates, the elaboration starts at $T^{2'}$, continues at T^3 and ends at T^4 . It is obvious

that different phases are identified in terms of the states of actions, S^1 and structural elaboration. These states warrant the order of time instants and the connection between them.

The pre-existence of S^1 and its position in Archer's scheme is bound up with the condition of S^1 on A^2 . With respect to *only structural elaboration*, there is no need to show the state of S^1 at T^1 . As indicated in Figure 2, one thing pre-existing another does not imply that they cannot both exist at the same time: for instance, my father predates me; and both of us are alive now. Hence, S^1 and A^2 could both exist at T^2 . Concerning the elaboration of a structure, there has to be a moment before T^2 at which S^1 and A^2 both exist: the former is the raw material of elaborating a structure, and the latter brings about this elaboration. As a consequence, T^1 is not demanded for showing the elaboration of a new structure. For one thing, T^1 merely stands for the existence of S^1 , which alone cannot contribute to structural elaboration. For another, if T^1 and T^2 indicate the same situation of S^1 , then there is no need to characterise T^1 specially. It might be argued that T^1 demonstrates that S^1 is not the result of A^2 and is independent of it. However, T^2 could do the same thing: by defining T^2 , S^1 and A^2 are identified to exist and exist independently.

The notion that S^1 pre-exists A^2 , as well as the importance of this notion in Archer's conceptual scheme, is based on the causal relationship between S^1 and A^2 . Firstly, the importance of emergent properties consists not only in their irreducibility but also in the causal powers they have. In Archer's (1995, 14) view, emergent properties 'exert independent *causal influence* in their own right and it is the identification of these cause powers at work which validates their existence'. Furthermore, Archer supports the notion that structural properties condition agency. She says: 'Their (structures') conditional influence consists in dividing the population (not necessarily exhaustively) into social groups working for the maintenance versus the change of a given property, because the property itself distributes different objective vested interests to them at T^2 ' (Archer 1995, 77).

According to this concept, structural properties affect agents by dividing them into different groups, and thus influence the subsequent actions by agents. Thirdly, the effect of structures upon actions supports their pre-existence. In interpreting Bhaskar's notion that 'society is the condition and reproduced outcome of agency,' Archer (1995, 150) says, "'condition" should actually be read to mean "pre-condition", and "outcome" to imply that which post-dates given action.' Furthermore, in her critique of individualism, Archer (1995, 44) holds that the 'denial of the pre-existence of social forms was intended to deprive them of causal efficacy.'

The story seems perfect now. Firstly, analytical dualism is based on the analytical separation between social structures and agency; that is, social structures and agency possess emergent properties. Not only structural properties and individual properties are ontologically irreducible, but also they render structures and agents' powers to influence each other causally. As a consequence, structures *are able to* influence agents and their actions. The second principle presupposed by analytical dualism is the temporal distinction between social structures and agency: for instance, social structure (S^1) pre-exists social actions (A^2). This is justified given that structure (S^1) exerts causal influence upon subsequent social actions (A^2). Inasmuch as A^2 contributes to elaborating a new structure, the pre-existence of S^1 is necessary for completing the whole process. In other words, it is not the pre-existence of social structures that justifies its causal influence on social actions, but rather vice versa.

Nevertheless, a clearer articulation is still required. The expression, such as 'structures exert causal influence on subsequent actions', is literally compatible with two interpretations.¹²¹

The first interpretation informs that subsequent actions have already been influenced by structures. The second interpretation states that social structures pre-exist some actions and their influence upon actions is posterior the occurrence of actions. In terms of the latter

¹²¹ This expression is seen in *Realist Social Theory: The Morphogenetic Approach* (Archer 1995, 86; 90- 91; 154; 156).

interpretation, the causal influence of structures upon agency does not imply they are pre-existing actions. It is plausible to suppose that there is a moment when both structures and actions exist and the causal influence of the former upon the latter happens after this moment. I think the defence of the pre-existence of social structures requires us to underline that actions (A^2) starting from T^2 have been influenced by social structures (S^1). To be clear, A^2 is the effect of S^1 ; S^1 is the cause of A^2 . I will provide further arguments in the next section.

5.2.3.2. Social Structures Predate Activities

This section starts with a question: if a structure has an effect on actions, does it entail that this structure predates these actions?¹²²

¹²² My discussion presuppose a traditional notion about cause-effect: a cause predates its effects. Hence, I suspend the discussion about whether a cause must predate its effect. There is no need to talk about this in that I aim to clarify Archer's notion as she is for this traditional conception about causation.

Before answering this question, I will firstly give a definition of ‘action’ and ‘activity.’

Though making a distinction between two terms, Archer does not clarify their definitions in

her theory. On the one hand, Archer is for the notion that social structures at present depend

on past actions but not on present ones.¹²³ On the other hand, however, she holds that

activities are different from actions because they are discontinuous.¹²⁴ The discontinuity of

activities demonstrates the importance of specifying whose activities social structures depend

on, when and where. As Archer says,

Instead, what I am challenging here is the basic idea of an unbroken flow of activities and particularly as supported by the notion of the continuity of social groups. To contest this in no way depends upon contesting the premise that all aspects of the social world are continuously activity-dependent ... Instead, it usefully adds greater precision to it by specification of elements like 'whose' activities, ‘when’, and ‘where’. (Archer 1995, 73)

¹²³ To quote Archer (1995, 148), ‘It is affirmed that social structures are only efficacious through the activities of human beings, but in the only acceptable manner, by allowing that these are the effects of past actions, often by long dead people, which survive them (and this temporal escape is precisely what makes them *sui generis*). Thus they continue to exert their effects upon subsequent actors and their activities, as autonomous possessors of causal powers. How they carry over and how they exert their effects is just what the M/M approach attempts to theorize’.

¹²⁴ ‘Action itself is undeniably continuous, but the nature of activities is not, being discontinuous with past activities because of the new relational constraints and enablements, which now unavoidably help to shape it. In other words, we can talk of continuous action without implying a continuous unbroken flow of activities’ (Archer 1995, 73).

To avoid these ambiguities, I will use ‘action’ in a general sense. Action is ‘what is intentionally done by a human rational agent’ (Bunnin & Yu 2004, 10). The term ‘activity’ underlines a particular process of an action done by a particular agent; the process is time-space extensive.¹²⁵ For instance, ‘Jason turns off the light’ is a general description of Jason’s action. When we analyse Jason’s activity, it is the process, which involves body movements and is spatial-temporally located, that is at issue.

Answering the question raised at the beginning of this section will direct us to acknowledge that only *activities* which involve or are identified by the effects of a structure postdate this structure. Let us see an example. Jason has been pacing in a room since 9am, and then at 9.40am, another person places a box in this room while Jason is still pacing. Jason kicks the box as it was in his path at 9.41am. Hence, Jason’s walking is influenced by this box as a resistance. However, it seems unreasonable to state that ‘this box predates *Jason’s action of pacing*’, because Jason’s pacing started at 9am, while this box came into existence at 9.40am. To solve this conflict, I suggest that the pre-existence of a box implies that this box predates the activity identified or involving the resistance caused by it. If we, like Davidson, maintain that an activity is similar to an event, since it is identified by its causal context, then Jason’s

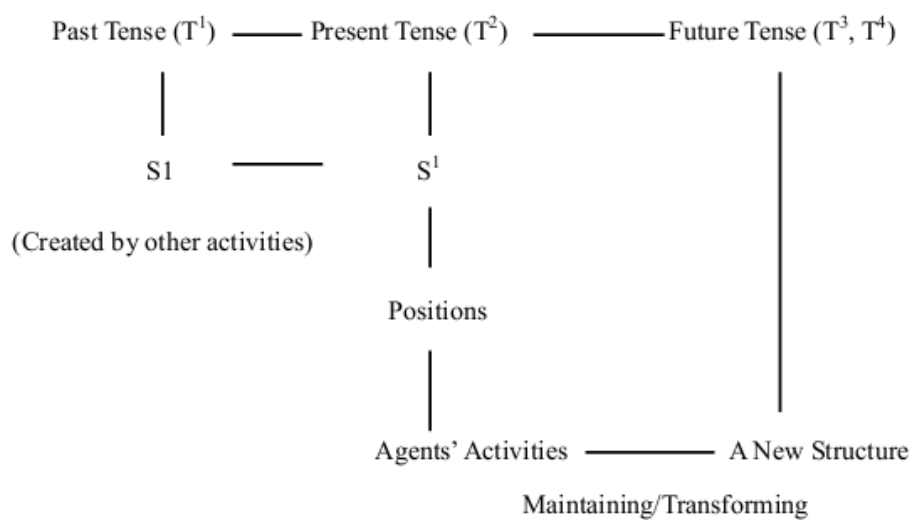
¹²⁵ Or ‘activities’ is defined as ‘particular processes of actions done by agents’. Activities are time-space extensive.

walking influenced by the box at 9.41am is different from his other walking activities before this moment. It is not because this walking is identified by time, but rather it is located in a new causal context. If we agree with Goldman, then Jason's walking at 9.41am is a structure, the particularity of which is characterised by it being composed of a new property – being resisted by a box.

With respect to this example, in order to defend Archer's concept of temporal distinction, actions starting from T^2 ought to be specified as the *activities* which are identified or constituted by the effects brought about by structure S^1 ; only these activities postdate structure S^1 .¹²⁶ In other words, actions at T^2 do not stand for the continuity and similarities of actions. Rather, they are particular activities characterised by their discontinuity and difference. This difference and discontinuity not only contributes to identifying T^2 as the starting point of activities but also argues for the necessity of this identification. In addition, it indicates the requirement for tracing back to the moment of T^1 , in that the difference of activities is attributed to pre-existent structural causes. Finally, it implies that the conditioning of a social structure on *agents* is before T^2 . As Archer demonstrates, the division of agents

¹²⁶ It might be argued that Jason and the box are externally related, while structures and agency are not. The point of this example, however, is to clarify the temporal relation between a cause, the box, and its effects, the happening to Jason. Hence, it is not about the spatial relation between two entities.

into groups is anterior agents' actions transforming or maintaining given structures. This division presupposes the occupation of social positions by agents. As a consequence, the historical emergence of particular properties of social structures embraces a synchronic perspective. This is shown in Figure 3:



(Figure 3)

T^2 shows the co-existence of S^1 and activities, though the causation between them happens before this instant. Furthermore, the situation at T^2 is the same as that demonstrated by Bhaskar's transformational model of social activity. As I demonstrated in Chapter Four, Bhaskar approves of the duality of practice: the practices of social agents not only satisfy their own demands but also transform or maintain social structures to explain this duality, Bhaskar formulates a position-practice system in terms of which the

transformation/maintenance of social structures by agents is ascribed to their occupation of the positions in social structures. This articulation matches the picture of T^2 : when their activities start at T^2 , agents have occupied the positions of S^1 . In addition, it demonstrates that agents have already been influenced by this structure before they have activities (A^2). For instance, an agent has obtained information about the structure of capitalistic production, such as the capitalist-worker distinction, before he becoming a worker; being a worker, he has been trained before manufacturing products in a factory.

5.2.3.3 The Causal Influence of Social Structures upon Social Processes

Archer's theory implies that social structures possess the power to influence social phenomena, the results brought by social actions. Although social actions are required in producing social phenomena, the explanation of those phenomena in terms of social structures could be independent of explaining them in terms of social actions.

This notion, firstly, is expressed by Archer. She states that a social structure not only has causal powers to influence actions, but also has powers for maintaining its stability. As a consequence, the transformation of a social structure by social agents is resisted by this structure. To quote Archer,

What the diagram (morphogenetic cycle) serves to highlight is that the initial structural influence does not peter out immediately, even given a collective determination to transform it (indeed here the major burden of illiteracy is dispersed only towards the end, in the last or penultimate time interval). In other words it takes time to change any structural property and that period represents one of constraint for some groups at least. (Archer 1995, 78)

In addition, Archer, in her critique of methodological individualism, states,

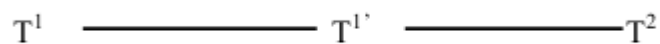
If we take the example of a demographic structure (which should be agreeable to Individualists since it is made up of N people of different ages), then the relevant population, that is, those of child-bearing age who could change it, cannot significantly modify it for several years nor eliminate all its effects for many more. Yet more significantly, they themselves are constantly influenced by it since it has determined the size of this initial 'relevant population' to which they belong. Many distributions have this same property of taking time to change, even if all people present are consensually dedicated to their transformation. Their very resistance shows that they are not epiphenomenal: their differential resistance invites us to address the nature of the structure itself rather than automatically attributing its endurance to people's lack of commitment to change or information about it. (Archer 1995, 44)

In terms of this articulation, the power of social structures is demonstrated in that it takes time to transform a social structure, even if all agents aim for this transformation.

Secondly, a structure's powers of self-maintenance are implied by the concept that a social structure predates the activities, which are identified or constituted by the effects brought

about by it. For one thing, discussing the maintenance of a structure is inevitable; for another, the discontinuity of activities implies that a structure has causal powers contributing to its maintenance. I will argue this with respect to the relationship between structure (S^1) and activities (A^2).

The subject-matter of the maintenance of S^1 is unavoidable. It is not based on the presupposition that because S^1 exists at T^1 and T^2 , it persists during this time. My argument will demonstrate a dilemma: when the issue of the maintenance of S^1 is kicked out of the door, it comes in through the window. One might suppose that S^1 does not continually exist from T^1 to T^2 . This implies that we can at least identify one instant (let us say $T^{1'}$) between T^1 and T^2 when S^1 disappears or is changed. Hence, we have a diagram:



If S^1 disappears at $T^{1'}$, then the question raised is not about the disappearance and the emergence of the same structure. Rather, it is about the disappearance of S^1 and the emergence of another structure. Even if they are qualitatively identical, they are two things.

Supposing a new structure (let us say $S^{1'}$) emerges at T^2 , T^1 - T^2 concerns the disappearance of a previous structure (S^1) and the elaboration of a new structure. This is the subject of a morphogenetic cycle (Figure 1) in which the maintenance of a previous structure is involved.

If S^1 disappears at $T^{1'}$ and the moment $S^{1'}$ emerges is not T^2 , then it is concluded that the moment ($T^{1''}$) when $S^{1'}$ emerges is after $T^{1'}$ and before T^2 :



With reference to this diagram, firstly, $S^{1'}$ persists from $T^{1''}$ to T^2 . As a consequence, its maintenance is still in question. Secondly, T^1 - $T^{1''}$ stands for the period during which S^1 disappears and $S^{1'}$ emerges. This issue is concerned by Archer's morphogenetic cycle which includes the maintenance of S^1 .

If S^1 does not disappear but is transformed at $T^{1'}$, it follows that the whole process is about the changing of one structure. It presupposes that S^1 could keep some identity or continuity from T^1 to T^2 , so that the discussion of the transformation of this structure but not the birth of a new structure could be possible. It still leaves the question: Why does S^1 remain during T^1 and T^2 ?

The concept that social structures possess powers of self-maintenance is supported by the discontinuity of activities. Let us suppose: (1) at T^2 , all activities aim at transforming S^1 , then

these activities cannot maintain the existence of this structure; (2) S^1 is entirely the outcome of past activities; (3) the moment T^1 is identified not only as the termination of past activities but also as the establishment of S^1 . Then, there is the conclusion that the explanation of the maintenance of a social structure is not in terms of only social actions. Firstly, one cannot do two activities at the same time, it is concluded that there is a time span between the end of previous activities and the starting of next activities. Secondly, on the level of the individual's interactions, this time span could not be eliminated, because it is unavoidable for each individual. Hence, it leaves the question: does the structure exist during this time? Firstly, according to my analysis mentioned above, the issue of the maintenance of S^1 is unavoidable and presupposed when the answer of the question is negative. Secondly, if we hold that the persistence of S^1 entirely counts on other activities, we will fall into the dilemma of regression because there is a time span between two activities. The question; 'can S^1 maintain itself during the time distance of two activities?' will again and again be put forward. One method to avoid this regression is to admit that S^1 has its own powers for sustaining its stability. The effects of these powers do not result from the individual's interactions.

This conclusion complements Archer's rejection of one-dimensional theorising. Firstly, because social structure (S^1) causally influences activities (A^2), S^1 is an *explanans* in

explaining this causation. Secondly, A^2 brings about the elaboration of another structure. S^1 , thus, is the complement in the explanation of structural elaboration. Finally, according to my analysis in section 5.2.3.3, once Archer argues for the causation between structures and activities, her theory potentially explains why structures possess some causal powers, which have an independent influence on the result produced by social activities. The acknowledgement of these causal powers is not completed through exploring individuals' interaction and their relations. Take Archer's study of culture systems for instance, she maintains that the exploration of these structures' constituents is not reduced to the study of cultural agents.

5.3 The Problems of Tony Lawson's Economic Theory

5.3.1 On Lawson's Critique of Mainstream Economics

One subject addressed by Tony Lawson is mainstream substantive theories. He explains the failure of these theories by exploring their explanatory failure and predictive failure.

Mainstream economics is not 'capable of explaining real-world events or of assisting policy formulation' (Lawson 1997a, 91). Neither does it forecast events 'occurring outside the period of which the models were initially constructed' (Lawson 1997a, 72). These failures, in terms of critical realism, are ascribed to the widespread employment of the deductivist

method in mainstream economics. Mainstream economics does not consider the conditions of employing this method. As Lawson (2003, 11) states, 'The continuing poor performance of the project in question is explained precisely by the persistent application of methods of formalistic modelling just in (social) conditions for which they are mostly not appropriate'. In Lawson's view, the condition of employing the deductivist method is closed systems characterised by event regularities. In addition Lawson argues that ontological implication of mainstream economics is inconsistent with critical realist ontology. Mainstream economics implies atomistic ontology. Lawson states, 'If such an atomistic ontology were not implied then deductive inference would not be feasible' (2009c, 336). Given the rejection of atomistic ontology results in the infeasibility of deductive inference, deductivism implies atomism. By 'atom', he means 'stable entities that (if triggered) have their own separate and invariable effect whatever the context' (Lawson 2009c, 336).

Lawson's assessment of mainstream economics raises some debate. Economists, such as D. Wade Hands and Jack Vromen, state that Lawson blames mainstream economics for its submission to empiricism. They claim that this assertion, however, is a misunderstanding. Some mainstream economists aim to reveal underlying causal mechanisms and tendencies behind social phenomena. Their theory is compatible with critical realism. D. Wade Hands

(1999, 176), for instance, states that Walrasian general equilibrium isolates ‘the underlying ‘greater causes’ of the phenomena that we observe’. It provides a theoretical closure which is lacking in daily society. Walrasian general equilibrium argues that when some conditions are satisfied, the tendency expressed by an equilibrium is realised. Lawson defends his theory by saying that it does not argue that the ontological implication of mainstream economics is empiricism. Rather, what is presupposed by mainstream economics is atomism:

My contention is not that the emphasis on mathematical-deductivist methods forces the mainstream to accept a ‘flat’, non-layered empiricist ontology. It is rather that this emphasis restricts the mainstream to theorising in terms of closed worlds of isolated atoms (Lawson 2009c, 336).

I do not think Lawson’s defence of his critique is successful. Firstly, in Lawson’s theory, the method of mainstream economics is bound up with empiricism. Mainstream economics, according to Lawson, is characterised as ‘deductivism’, ‘mathematical formalism’ and ‘mathematical-deductivist modelling’ (Lawson 2003, 5). The interchangeability of these terms is based on a conclusion that deductivism, mathematical formalism and mathematical-deductivist modelling lead to empiricism, which reduces causal laws to event regularities. When he defines the concept of deductivism, Lawson highlights that deductivism presupposes empiricism. To quote him,

But is there really a set of methods or ways of proceeding in economics that can be shown to be both as fundamental to the mainstream project as I am suggesting, and yet largely irrelevant to the analysis of social phenomena? ... The main ‘culprit’, I shall argue, is a mode of explanation that can be referred to as *deductivist*, or, more particularly, it is the conception of ‘laws’ (or ‘significant results’ or ‘theoretical formulations’) upon which deductivist explanation ultimately depends. (Lawson 1997a, 16)

By deductivism I mean a type of explanation in which regularities of the form ‘whenever event x then event y’ (or stochastic near equivalents) are a necessary condition. Such regularities are held to persist, and are often treated, in effect, as laws, allowing the deductive generation of consequences, or predictions, when accompanied with the specification of initial conditions. Systems in which such regularities occur are said to be closed. (Lawson 2003, 5)

According to this articulation, deductivism is a mode of explanation. This mode consists of the statement ‘whenever event x then event y’, which presupposes the empiricist concept of causal law: causal laws are event regularities. As a consequence, Lawson concludes that the necessary condition of the employment of deductivist explanation is a closed system. Given the identification of this ontological presupposition, Lawson connects deductivism with formalism. In *Reorienting Economics*, he states that thanks to this ontological presupposition, deductivism ‘is necessarily one that facilitates the widespread usage of mathematical formalism including formalistic modelling’ (Lawson 2003, 4). Elsewhere in this book,

Lawson further underlines that the construction of the formalistic model presupposes event patterns and, thus, is a closed systems.¹²⁷

This articulation of deductivism does not imply that Lawson ignores that this mode of explanation requires logical deduction between propositions.¹²⁸ In *Economics and Reality*, Lawson (1997a, 17) mentions that ‘according to deductivist explanation, then, the explanandum must be deduced from a set of initial and boundary conditions plus universal laws of the form “whenever event x then event y”’. Therefore, the deductivism in Lawson theory is the D-N model of explanation formulated by Hempel.¹²⁹ Nevertheless, Lawson’s linking empiricist ontology with deductivism results in his underestimation of the complexity of rejecting this model. Lawson states that the legitimacy of the D-N model requires the constancy of events connections. As a consequence, this model is rejected by arguing that this

¹²⁷ As Lawson (2003, 222) states, ‘Such modelling attempts to relate one (measurable) set of events or states of affairs to others. It presupposes correlations in surface phenomena, that is, strict (possibly including probabilistic) regularities of the form ‘whenever event (or state of affairs) x then event (or state of affairs) y’. Let me refer to situations in which such regularities occur as closed systems. Formalistic modelling, to have general relevance, presupposes the ubiquity of such closures’.

¹²⁸ In Hodgson’s view, Lawson’s definition of deductivism ‘is a rather atypical definition of deductivism, because it refers to empirical regularities concerning events rather than logical deductions concerning propositions’ (Hodgson 2009, 176-177).

¹²⁹ To quote Lawson (1997a, 17), ‘That this theory of explanation is also variously known as the covering law model, the Popper-Hempel theory of explanation (Popper first restated it in recent times, Hempel has been its most ardent defender), the deductive-nomological model (nomos being Greek for law) or D-N model for short, amongst other things’.

constancy is absent. This rejection of the D-N model is incomplete. I will analyse Lawson's theory by comparing it with Bhaskar's argument.

Bhaskar criticises the D-N model of explanation from two aspects: one is his disapproval of equating causal laws with constant conjunctions of events; the other is his demolishing of the deduction internal to this model. The former relies on his critique of empirical realism.

Bhaskar thus argues for the invalidity of the precondition of the D-N model of explanation.

He argues this by a transcendental argument from experiment. This argument contributes to a critical realist ontology. Nature is stratified as the real, the actual and the empirical.

Generative mechanisms operate in the real domain and events in the actual. The essence of causal laws is the operational model of the generative mechanism but not event patterns. This concept of causal law does not necessitate the rejection of the D-N model explanation, or the employment of 'whenever event x, then event y' in explanation. The adoption of the D-N model and of the statements of event patterns could be based on an epistemological, but not ontological, claim: 'since factual knowledge is grounded in experience, it can extend to only observable phenomena' (Boyd 1991, 196).

Bhaskar's rejection of the D-N model also relates to his definition of causation: causal relationships do not instantiate regularities; one is the cause of the other, if it brings difference to the latter. For instance, in *the Possibility of Naturalism*, he argues that reasons cause activities, because they make differences to human activities. The validity of a causal statement does not depend on its position in a structure of explanation – it derives from a general statement of causal law. As a consequence, both Bhaskar and Rom Harré identify statements such as 'acidity turns logwood solution red' and 'I turn off the light' as causal statements. A reason explanation, thus, is a causal explanation. This understanding of causation is clearer in Harré's theory. A causal statement relates to 'a common noun and a predicate by a verb of causal activity' (Harre 1998, 105). This definition of causation implies that a singular matter is identified as the cause of another in terms of the difference brought about by it. It is against the D-N model of explanation, in that the latter implies the Humean concepts of causation. Proponents of the Humean approach state will argue that 'causal concepts are applicable only when the relevant events are covered by a regularity' (Pssilos 2002, 59). In terms of the D-N model, the identification of a singular event as the cause of another is invalid, unless both of them are covered by a regularity which is expressed as 'whenever event type x, then event type y'. Hence, the form of explanation is logically deductive. On the contrary, Bhaskar argues that a causal explanation of a singular event does

not appeal to a general statement of regularity; specific events causally explain specific events. A causal explanation is valid without acknowledging the law and the deduction internal to an explanatory structure.

Nevertheless, it is noted that the rejection of the deductive model does not imply the rejection of empirical ontology. What is undermined by this definition of causation is the logical structure implied by a causal statement of a specific event. It infers nothing about the essence of a causal law. As Psillos states, ‘It might seem possible to reconcile the singularist approach with a Humean one ... this is precisely the line taken by Davidson (1967). On his view, all causation is nomological, but stating the law explicitly is not required for causal explanation’ (2002, 233).

With respect to Bhaskar’s articulation, let us turn to Lawson’s argument. It is one thing to argue that adherents to ontological empiricism accept the application of ‘whenever event a, then event b’; it is another to argue that the theory making use of this statement implies ontological empiricism. Lawson, however, does not make this distinction. In one chapter of *Economics and Reality*, he states that one’s agreement of ontological empiricism implies his approval of deductivism, and of the D-N model (Lawson 1997a, 16-17). Following this, he

immediately states that the employment of the statement, 'whenever event a, then event b', presupposes the empiricist view of causal laws. Orthodox economics follows deductivism. Lawson (1997a, 18) aims to 'question the presupposition of the generalised relevance of deductivism. In particular ... determine the conception of reality presupposed by it, and specifically by the theory of laws or law-like statement on which it depends'. Because the D-N model presupposes an empiricist notion of causal law, Lawson believes the refusal of this presupposition result in the breaking down of the D-N model. The problems of this critique are summarised as follows. Firstly, I doubt that the D-N model of explanation presupposes empiricist ontology. Even if one scholar agrees that the essence of causal law is the operation mode of a generative mechanism, he could still argue for the D-N model of explanation. For instance, he could argue that the operation of one generative mechanism produces an event pattern. Therefore, the performance of event regularity prompts scientists to reveal the mechanism behind it. The more frequently an event conjunction performs, the more likely a generative mechanism operates. Considering the explanation of a particular event, if the *explanandum* statement of this event is deduced from the *explanans* statement of an event pattern plus the statement of initial conditions, then the possibility that this event is the outcome of the operation of one generative mechanism is increased.

For his critique to be effective, deductivism must presuppose empiricism. This implication, however, is questionable. It presupposes a meaning referential theory. This arouses the criticism of some scholars who state that this implication is invalid. For instance, both Geoffrey M. Hodgson and Vromen state that to some extent, the economic models capturing causal mechanisms are unrealistic. As Hodgson (2009, 181) says, ‘The power of the model is helped by its *unrealisticness*. The power of the model lies in its capacity to abstract a plausible but hitherto neglected causal mechanism’. Hodgson takes Sugden’s theory as an example: Sugden states that meaningful propositions about the world are based on an admittedly unrealistic model (Hodgson 2009, 181). Similarly, Vromen states that in terms of the results produced by a market mechanism, economists approve that economic agents behave *as if* they are rational.

Economic theory is only committed to the belief that economic agents behave *as if* they actually went through these deliberations and calculations, for example, business men need not actually base their decisions on a comparison of marginal costs and revenues, as is assumed in neoclassical theory of the firm. (Vromen 2009, 327)

In responding these critiques, Lawson (2009c, 338) argues that without the existence of objects, we cannot have the knowledge of this object: ‘why should we expect actual behaviour to be (or even imagine that it could be) consistent with theory that does not

describe it?' Following this idea, it is argued that without the existence of the object, we cannot have statements of this object. Lawson's statement is on the side of the realistic standpoint. However, it misses the point: how do scholars access reality through theory construction; how do meaningful propositions refer to objects? Lawson's theory implies a meaning referential theory: if the concept, 'x', is meaningful, then x must exist. This meaning referential theory is also demonstrated not only in Bhaskar's theory. In Chapter Four, I argued that Bhaskar believes that mental states are irreducible to physical states; otherwise, the discipline studying mental states cannot have its own terminology. In other words, Bhaskar states the difference between the vocabularies of disciplines stands for the different and real properties of things. Similarly, in Lawson, the statement, 'whenever event a, then event b', implies the existence of a constant conjunction between event a and event b: 'event a' and 'event b' implies the existence of event a and of event b; 'whenever... then' refers to the constancy of events conjunction. This standpoint, unfortunately, brings trouble to Lawson's theory. Lawson does not clarify his standpoint on the issue of meaning. Therefore, his theory opens up to logical positivism, because logical positivism approves meaning referential theory. In logical positivism, the basic elements of the linguistic system are concepts standing for states of affairs. Based on these elements, statements and theories are constructed. The meaning of concepts depends on the verification of the states of affairs

supposed by the concepts. As a consequence, it is argued that the reason Lawson used to reject mainstream economics: ‘whenever event a, then event b’, is compatible with logical positivism which is repudiated by critical realism. To avoid this dilemma, Lawson ought to demonstrate his stance on the theory of meaning.

Another problem of Lawson’s argument is his separation of atomism from empiricism.

Lawson agrees that one’s use of a formalistic model does not imply one’s acceptance of empirical realism:

In short, the critique of empirical realism removes one fundamental philosophical crutch upon which any deductivist approach might be expected to rely. But, I repeat, to argue this, and to draw out the ultimately unfortunate consequences of this reasoning for the deductivist approach of modern mainstream economics, does not necessitate that I believe orthodox economists are imbued with an empirical realist, or indeed with any explicit philosophical, theory or ‘vision’. (Lawson 1999b, 227)

In his reply to Vromen, Lawson (2009c, 336) again highlights that the reliance of mainstream economics upon a mathematical-deductive method, which does not necessitate empirical realism, but rather an ontology of closed systems consisting of isolated atoms.

Nevertheless, the connection between the implication of isolated atoms and mathematic-deductive method cannot be established without the mediation of empiricism. I will argue this by comparing Lawson's account with Bhaskar's argument in *a Realist Theory of Science*. Bhaskar states that atomism is implied by ontological empiricism (see Chapter Three). The world consists of only events, and the essence of causal laws is the regularity of events. To quote Bhaskar,

If a recorded regularity breaks down the regularity determinist must assume that it is because one of these conditions is not satisfied. Until now in developing the conditions for a closure I have been using the categories 'internal' and 'external'. But the categories 'intrinsic', and 'extrinsic' are better in that they are not explicitly tied to a spatial characteristic and hence to things of a certain type. (Bhaskar 2008, 66)

Now it is easy to see that once an actual isolation and an atomistic description are set up as norms two regresses are initiated, viz. to systems so vast that they exclude nothing and to individuals so minute that they include nothing. These regresses are typically manifest in research programmes, characteristic of positivistic science, which could be dubbed 'interactionism' and 'reductionism' respectively. It is clear that they can only be halted by constituting a level of autonomous being, somewhere between the universe and atomistic individuals. (Bhaskar 2008, 67)

This demonstrates that atomism is the precondition of empiricism. One insists that causal laws are constant conjunctions of events. For the availability of this conjunction in every occasion, one has to exclude all interference. As a consequence, entities are reduced to atoms without internal complexity. Atomism is thus implied.

Lawson's separation of atomism from empiricism is in question. Without the linkage between empiricism and atomism, there is a tension in Lawson's theory. On the one hand, he maintains that mainstream economics implies atomism, but not empiricism. On the other hand, however, empiricism functions in his argument. For instance, Lawson states, 'If economists are to *theorise general connections* between given events, if they are to persist in their micro- and macro- and econometric modelling endeavour, an atomistic ontology will be involved' (2003, 15; emphasis added). This articulation informs that atomistic ontology results from the generalisation of event conjunctions.

Another piece of evidence is that Lawson links methodological individualism with social atomism. Social atomism is presupposed by the formalistic model. Lawson states,

The ontological presuppositions of (or encouraged by) the insistence on mathematical modelling, then, are of subsets of the social domain constituted by isolated sets of atoms. Most typically, such deductivist modelling endeavour encourages a view of atomistic human agents (social atomism) where these are the sole explanatory units of social analysis (methodological individualism). (Lawson 2003, 16)

This articulation demonstrates that social atomism is a theory which states that a society consists of only individuals. The adherents of this ontology must approve of methodological individualism. Social atomism, however, relates to ontological empiricism. In Bhaskar's (1998, 29) view, methodological individualism is an epistemological manifestation of social atomism. Nevertheless, Bhaskar traces social atomism to a positivist tradition in the philosophy of social science: the reduction of social laws to event regularities (Bhaskar 1998, 19).

Finally, Lawson's critique of mainstream economics is internally contradictory. On the one hand, Lawson states that the application of the deductivist method entails atomistic ontology. On the other hand, however, this is rejected by him in *Reorienting Economics*. Lawson (2003, 15) distinguishes the closure of causal sequence from the closure of concomitance. Both closures are expressed in the form: 'whenever event a then event b'. Hence, the employment of the deductivist method presupposes either causal sequence or concomitance. However, a closure of concomitance does not imply an ontology of atomism, because the events involved

in this conjunction ‘they are both related to a third (set of) factor(s), there is no necessary presumption about how movements in the latter are related to movements in either (or both) of the former’ (Lawson 2003, 15). Furthermore, Lawson (2003, 15) admits that a closure of causal consequence does not necessitate atomism; atomism is only encouraged.

5.3.2 The Distinction Between Closed Systems and Open Systems

In this section, I will focus on Lawson’s claim that closed systems, or constant conjunctions of events, are necessary conditions for the application of the deductivist methodology.

Lawson claims,

Regularities (real or imaginary) of the form ‘whenever event (or state of affairs) x then event (or state of affairs) y’ (or stochastic near equivalents) are a necessary condition if formalistic deductivist methods of the sort economists seek are to be utilised. (Lawson 2009a, 194)

Before arguing against Lawson’s standpoint in detail, I would like first to clarify the framework of my argument. It consists of two elementary concepts: ‘open systems’ and ‘closed systems’. In addition, I further distinguish ‘ontological closed/open systems’ from ‘methodological closed/open systems’. In critical realism, the distinction between open systems and closed systems depends on the occurrence of event regularities. A system in

which an event regularity occurs is a closed system; otherwise, it is open. Hence, ‘open systems’ are defined as ‘non-closed systems’: ‘the absence of patterns of events’. From the standpoint of ontology, ‘closed systems’ means that constant conjunctions of events are given in nature or society. By ‘methodological closed systems’, I mean that the events patterns are performed through scientific studies. These concepts are available not only to experiment, but also to a conceptual scheme in the form of ‘ $y = f(x)$ ’.

I proceed with my argument by referring to this framework because, firstly, in critical realism, the concepts of open/closed systems are crucial to the critique of mainstream economics.

Mainstream economics is criticised because the method used by it presupposes closed systems. Secondly, notwithstanding being not clarified, the methodological dimension and ontological dimension are combined in Lawson’s theory. For instance, in *Reorienting*

Economics, Lawson states,

However, in order to facilitate deductivist or closed-systems formalistic modelling, any powers attributed to agents (whether realistic or not) must be assumed always to be exercised, and exercised in given ways. (Lawson 2003, 25-26)

This is consistent with underlying causal structures being often relatively enduring but with the social world in general being *open* (events are determined by a multitude of shifting causes). (Lawson 2003, 46)

I have found that the two sets of objectives, explanatorily powerful theories and mathematically tractable models, are usually incompatible, just because of the nature of the social world. For whereas the latter has been found to be quintessentially open and seemingly insusceptible to scientifically interesting local closures, the generalised use of formalistic economic methods presupposes that the social world is everywhere closed. (Lawson 2003, 67)

In the first statement, ‘closed systems’ attaches the feature of a formalistic model. In the latter two statements, this concept, as well as ‘open systems’, are about the social world. Lawson conflates methodological closed/open systems with ontological ones. This conflation is condemned by some scholars. One critique is from Parsons (1999, 160). On his view, critical realism states that a constant conjunction of events is constructed in only experimental contexts. On the other hand, however, critical realism argues that constant event conjunctions are displayed in the world. Lawson provides examples about the causal relation between generative mechanisms and event patterns in an open world. These examples, such as puppies turning to dogs, are reduced to the patterns of events or of affairs. Since ‘closed systems’ is defined as ‘the performance of constant conjunction of events’, it is concluded that in critical realism, closed systems are not only produced through experiment but also shown in an open world.

Critical realism provides a dualistic definition of ‘open/closed systems’. ‘Open systems’ is defined as the negation of ‘closed systems’. It is replaceable by ‘non-closed systems’.

‘Closed systems’ is defined as the ‘constant conjunction of events’. ‘Open systems’ and ‘closed systems’ are not only excluded but also exhausted. To be specific, firstly, ‘x is a closed system’ and ‘x is an open system’ is in logic a contradiction: they cannot both be true; nor can they be both right. Secondly, x is a system, then it is either an open system or a closed one. As a consequence, provided closed systems are necessary conditions of the employment of deductivism, and a system is neither open nor closed, it is concluded that deductivism is either applicable to study x or not.

5.3.2.1 Ontological Open/Closed System

From the view point of ontology, the statement ‘closed systems are necessary conditions for the application of deductivist methods’ is specified as ‘ontological closed systems are a necessary condition for the application of deductivist methods’. In other words, if deductivism is appropriate to explore a system x, then x must be a closed system. With respect to the definition of ‘open systems’, it infers that if a system x is an open one, the deductivist method is inappropriate to study it.

My analysis of this proposition will be as follows. Firstly, if the open system in question is a society, then it implies that deductivism is inapplicable to study it. Albeit Lawson resists

being identified as the adherent of anti-mathematics, this standpoint is implied. In critical realism, a society is an open system. ‘System’ is defined as the following according to the

Dictionary of Critical Realism,

A system can be defined generally as a collection of entities of any kind (e.g., physical, conceptual, or social) that form a whole, the behaviour of which depends on the relations between the entities more than on the nature of the entities themselves. Systems form nested hierarchies and are characterised by emergent properties, that is, characteristics or behaviours or powers that apply only to the whole rather than to its parts at any particular level. (Mingers 2007, 451)

A society, taken as whole, is an extension of the ‘system’. For one thing, it is a collection of different kinds of entities. As I analysed in Chapter Four, Bhaskar argues that there are human agents and social structures in a society. The former are not only physical but also social; the latter are both conceptual and social. For another, a society is a stratified system with emergent properties. Different social structures are in emergent relationships. Bhaskar, in *The Possibility of Naturalism*, states that exchange emerges from production. The operation model of exchange cannot be explained in terms of only production. Secondly, a society is the subject-matter of critical realism. It not only constructs an ontology of the society, but also argues that a society can be scientifically explored. Critical realists approve of naturalism. Thirdly, society is an open system to the extent that event patterns are rare in

this realm. As a consequence, it is inferred that the mathematic model is not available to study a society because a society is not a closed system.

In this situation, Lawson's conclusion, the ontological closed systems are necessary conditions for the application of formalistic models, is challenged. The problem of this idea is demonstrated by comparing a society with nature. On the one hand, he argues that a deductivist method is not available when studying a society, in that a society is an open system. On the other hand, however, a society being an open system is insufficient to argue for the inapplicability of deductivism. Nature, like a society, is an open system. For Andrew Collier, critical realism demonstrates that nature is an open system (Collier 1994, 46). Mechanisms, such as gravity, operate in this open system alongside with others. If the operation of one mechanism is interfered by other mechanisms, then the events patterns, which would have been produced by this generative mechanism is in absence. Lawson provides several examples to illustrate the openness of nature:

The fall of an autumn leaf, for example, does not conform to an empirical regularity, precisely because it is governed in complex ways by the actions of different juxtaposed and counteracting mechanisms. Not only is the path of the leaf governed by gravitational pull, but also by aerodynamic, thermal, inertial and other mechanisms. Similarly, the headache sufferer may take the aspirin in an environment which is, say, sufficiently noisy

that the pain experienced actually worsens despite the aspirin's pain-reducing *effect*.
(Lawson 1999a, 5)

Although nature is an open system, this does not prevent mathematics from being used in the natural sciences. As a consequence, with respect to only ontological closed systems, the following statement is doubtful: the application scope of mathematics is limited in social sciences, because a society is an ontologically open system. Third, Lawson might argue that unlike natural scientists, social scientists cannot establish closed systems in a lab; hence, mathematics is inapplicable. This defence, however, is about methodological closed systems, which I discuss in the next section.

One method for defending Lawson's conclusion is to specify the events patterns referred to by 'closed systems'. This underlines the concept of demi-regularity (or partial regularity). In Lawson's theory,

A demi-regularity, or *demi-reg* for short, is precisely a partial event regularity which *prima facie* indicates the occasional, but less than universal, actualization of a mechanism or tendency, over a definite region of time-space. (Lawson 1997a, 204)

This account, firstly, demonstrates that it is mechanisms in a society, but not a society *per se*, that are in consideration. Secondly, it correlates event regularities with mechanisms; the

former is the effect of the latter. The event regularities linking with causal mechanisms are deterministic conjunctions. That is, events are in causal sequences: an antecedent event causes the following events. Or, event regularities are stochastic conjunctions, ‘a system in which regularity occurs, connecting or covering a set of random outcomes or “variable”’ (Lawson 2009a, 195). Thirdly, this statement underlines the temporal-spatiality of demi-regularities. Generative mechanisms in a society, as well as those in nature, have temporal-spatial extension. Event patterns produced by the operation of these mechanisms are, thus, temporally-spatially limited. Herein lie two questions. Firstly, is a demi-regularity a strict event pattern? By ‘strict’, it means ‘whenever event x, then event y’ is available to events in conjunction with temporal-spatial location. Secondly, is a mathematical model appropriate to explore demi-regularities? Lawson’s answers to these questions are ambiguous.

On the one hand, demi-regularities include strict local regularities and incomplete ones. The formalistic model is applicable to explore the former ones. In *Economics and Reality*, Lawson (1997a, 204) states that demi-regularities, which are temporal-spatially located, ‘will not be strict if countervailing factors sometimes dominate or frequently co-determine the outcomes in a variable manner’. This implies that some demi-regularities are strict ones,

while others are incomplete ones. In terms of Lawson (2009a, 215), strict regularities are required by formalistic modelling; hence, some demi-regularities are compatible with the employment of the deductivist methodology. Celestial pattern, for instance, represents a strict demi-regularity.

On the other hand, however, in *Reorienting Economics*, Lawson states that strict event patterns are not a subset of demi-regularities. Neither does the identification of demi-regularities underline the ontological features of a system: its temporal-spatial extension, its relationship with causal mechanism, and its stability. In *Reorienting Economics*, Lawson provides an example. Suppose aggressive consumption in UK is a strict regularity with respect to the period of twenty years. Nevertheless, it is a demi-regularity from the perspective of thirty-year period, the latter ten years of which is lack of regularities (Lawson 2003, 105-106). Lawson concludes,

The content of any restricted closure is then a demi-regularities when viewed from the perspective of any wider or encompassing system which both contains the restricted closure and also include at least one occasion when the antecedent event occur but is not followed by the usual consequent. (Lawson 2003, 106)

Thus, the identification of one system as a demi-regularity depends on the cognitive standpoint taken by a scholar.

Suspending the ambiguity of his argument, Lawson highlights the temporal-spatiality of the object. He states that a strict local closure is required for the application of the formalistic method. In addition, incomplete local regularities and random flux is incompatible with this method. Nevertheless, there are still problems. Firstly, natural sciences provide counter examples. As Hodgson states,

Indeed, if we require that formal models can only be applied in contexts where local closure is actually achieved, then this would mean that such models were inappropriate in other sciences and disciplines, such as biology, physics or engineering. Generally, in multiple contexts, in both the natural and social world, such closures are absent. (Hodgson 2009, 180)

Secondly, I think the method suggested by Lawson supports a situation in which deductivist methods are able to be employed in the study of incomplete local regularities. In his theory, Lawson formulates a method named *contrast explanation*. This method proceeds from a question: why is this outcome occurring rather than that outcome? This question presupposes that there are two systems in comparison and they are different. The difference between them informs causal mechanisms bringing about this difference (Lawson 2003, 95). Hence, a

causal explanation is provided. The capture of difference is based on the comparison between two systems:

Most social demi-regs capture reasonably systematic differences (or more generally patterns) at the level of actual outcomes between two groups whose causal histories are such that the outcomes in question might reasonably have been expected to be broadly the same, or at least to stand in some definite anticipated or plausible relationship which is systematically at odds with what we observe. (Lawson 1997a, 206)

With respect to the example provided by Lawson: aggressive consumption in the UK, the first twenty years is a strict demi-regularity, while this consumption in the latter ten years is not. Hence, in Lawson's view, a formalistic model is applicable to study the consumption in the first twenty-year period. It is inappropriate to explore the consumption either of the latter ten-year period or of the thirty-year one. Nevertheless, in terms of contrast explanation: firstly, the formalistic model of the first twenty-year period provides a reference point on the basis of which the elements bringing about the absence of events regularities in the latter ten years are revealed. Secondly, this model contributes to explaining the transformation in the whole thirty-year period. This example illustrates the incoherence between open systems, critical realism and deductivism. A deductive method is applicable in the following circumstances. Firstly, the system being considered is a closed system. Secondly, if the object is a system, in which event patterns are lacking, then this method works in two cases. In one

case, the system is penetrated with respect to a closed system outside it; in the other case, the system is wider and contains a closure.

In addition, this situation violates Lawson's definition of 'open/closed systems'. According to Lawson, 'open systems' is defined as 'non-closed systems'. If x is a system, then it is either a closed one or an open one. Given this idea, if a deductivist method is applicable to study a system x , then x must be a closed system; if system x is an open one, then the deductivist method is inappropriate to explore it. This is contradicted in the example mentioned above: a closed system is a necessary condition for the application of the deductivist method. An open system, however, does not entail the preclusion of this method. To solve this dilemma, the 'open system' cannot be defined as a 'non-closed system'. As the example demonstrates, the systems to which a deductivist method is applicable are classified as open systems. Hence, the intension of 'open systems' must allow us to describe these specific open systems. If 'open systems' is defined as the negation of closed systems which are necessary conditions of employing deductivism, it must be the case that open systems preclude the application of deductivist methods. As a consequence, all kinds of open systems covered by this concept are incoherent with the employment of the deductivist method. As a consequence, there is a contradiction in logic.

5.3.2.2 Methodological Closed/Open Systems

On the methodological level, the possibility of establishing closed systems through scientific intervention is required for the employment of the deductivist method. If events patterns, which direct causal mechanisms, cannot be produced in principle, then deductivism is inapplicable. Lawson argues that the production of event patterns is rare in social sciences. This is ascribed to the ontological features of a society. In this section, I will demonstrate that Lawson's account is in doubt. Firstly, the ontological features selected by him do not support the rarity of closure in social sciences. Secondly, the method recommended by Lawson not only is compatible with the deductivist method but also presupposes closure.

Let us turn to the relationship between a methodologically closed system and the formalistic method. Are methodologically closed systems required by the employment of the formalistic method? Lawson's answer is 'yes'. He argues this by taking natural sciences as a criterion. In critical realist philosophy of science, there are generative mechanisms operating in nature, one operational model of one mechanism corresponds to an event pattern. The operation of one mechanism, however, is interfered by others. As a consequence, constant conjunctions of events are absent in the nature. Notwithstanding this point, constant events conjunctions are

performed in principle through experiments; experiments establish closed systems in laboratories. By closed systems, critical realists mean that experiments preclude interferences in the operation of one generative mechanism. As a consequence, event patterns, the counterpart of operation models, are produced. Natural scientists thus capture generative mechanisms through event patterns. The success in natural sciences encourages the proponents of mainstream economics. To quote Lawson,

And experimental activity of this sort supports the image of science accepted by the formalistic modellers of modern economics. For in the well-controlled laboratory experiment, event regularities (or closures) of the causal sequence type are regularly sought and often achieved, and where they are achieved forms of formalistic-deductivist modelling are indeed facilitated. (Lawson 2003, 23)

Following this idea, Lawson questions the application of formalistic models in social sciences. He states, if this method is applicable in economics, the closed systems are then established in principle by some kind of experimental activities. Nevertheless, Lawson argues, experiments are inappropriate in social sciences. This is ascribed to the features of social structures: human independence. The effects of social structures are only expressed through human activities. Hence, the realisation of the tendency of social structures is dependent on humans. Human activities are intentional; humans could have always done otherwise. As a consequence, the activities of a human agent are necessarily uncertain and open. Therefore,

notwithstanding being produced by social structures, social events must be uncertain. To

quote Lawson,

Now if choice is real any agent could always have done otherwise; each agent could always have acted differently than he or she in fact did ...if under conditions x an agent in fact chose to do y, it is the case that this same agent could really instead have not done y. Choice, to repeat, presupposes that the world is open and actual events need not have been. (Lawson 1997a, 30)

If an agent always could have acted otherwise, it is then argued that the effect of a social structure is necessarily possible to be otherwise.

This argument is problematic. Firstly, I do not think the logical necessity of ‘acting otherwise’ is sufficient to prove the absence of experiment in social sciences. Lawson points to no more than a logical possibility. It might be argued that because the realisation of social tendencies must rely on human actions, which necessarily involve uncertainty, the possibility of producing other effects, not the given effect, is necessary. This, however, is insufficient to support the conclusion that the study of a society is different from the exploration of the nature. For one thing, the statement, ‘it is necessarily possible that x does or produces something else’, is not as strong as the statement ‘it is possible that x does or produces something else’. In logic, the truth of the latter implies the truth of the former. In nature, the

effect of a generative mechanism could be otherwise. For instance, the operation of the solar system is possible to be different from the given one. Hence, 'it is necessarily possible that solar system is not so-and-so'. The crucial factor is the difference between 'x is so-and-so' and 'x is possible to be not so-and-so'. The truth of the former is compatible with the truth of the latter. This, however, does not bring new information about what is happening on x; it does not explain why x is as it is now. Providing only logical compatibility,

We could never know whether any particular act is in fact free. To tell whether a person could have done otherwise in any particular situation we would have to ascertain whether his action was fully determined by the antecedent circumstance (including his brain state in all its subtlety), or whether, by some amplification of quantum indeterminacy. (Cottrell 1998, 350)

In addition, this assumption does not support the rarity of experimental conditions in social sciences. 'The solar system operates so-and-so' is logically consistent with the statement 'it is possible for the solar system to be not so-and-so'. Experiment is not influenced and excluded by this logical possibility. For another, the influence of human actions upon the causal mechanisms' operation does not exclude the employment of mathematics. Observer effects demonstrate that it is not possible to observe a system without changing the system.

Observation is an agent action, which according to Lawson, is attached to the statement

‘social agents always could have acted otherwise’. Observer effects, however, do not conflict with the establishment of mathematical models in quantum mechanics.

For Lawson, methodologically closed systems are hardly ever established if the object is social structures. Can he thus conclude that the deductive mathematical method is not so useful in social sciences? This question will be answered by discussing the relationship between mathematics and critical realist methods.

Scholars argue that a closure is inevitable in scientific studies, even using the method recommended by Lawson. Hodgson (2009, 177), for instance, points out that Lawson’s concept of abstraction assumes conditions or forms of closure, because abstraction involves the limitation of the sphere of consideration. To be specific, some elements are selected by Lawson, while others are excluded. To this extent, abstraction constructs closed systems. Lawson endeavours to distance abstraction from closure. He argues that closure is bound up with the method of isolation, and isolation is different from abstraction. Nevertheless, the distinction between isolation and abstraction exists in principle; hardly any scientists identify it in practice. Andrew Mearman goes further. He argues that the assumption of closure is inevitable. By citing Paul Downward’s idea, Mearman states that the constancy of an object

is presupposed by studying this object. Hence, certain features or structures of this object are assumed to be constant; they are required for identifying this object as to what it is. As a consequence, some closure is introduced (Mearman 2004).

To address this question, I will analyse the method recommended by Lawson: retroduction. I think this method is inconsistent neither with the employment of mathematics nor with theoretical closure. Retroduction aims to identify causal mechanisms behind social phenomena. It starts from the selection of social phenomena. Following this, causal mechanisms on a deeper level are uncovered. They produce these social phenomena. As Lawson (1999a, 10) states, ‘Retroduction, in contrast with induction and deduction, is to move from the level of the phenomena identified to a different “deeper” level in order to explain the phenomena, to identify a causal mechanism responsible’. Critical realists, including Lawson and Paul Lewis, underline the importance of metaphor and analogy in revealing causal mechanisms.¹³⁰ The causal mechanism, which produces the phenomena in consideration, is identified by an analogy between it and different kinds of mechanisms; the latter is associated with people. Metaphors, thus, ‘direct a scientist towards new avenues of inquiry, in particular, by suggesting new hypothetical entities and mechanisms’ (Lewis 1999,

¹³⁰ As Lawson states, ‘Those working on critical realism, including myself, have generally rested content with making the observation that it “relies upon a logic of analogy and metaphor amongst other things” (1999a, 10).

97). Metaphors contribute to the construction of a model which facilitates scientific studies.

A famous instance is the model of the behaviour of gases provided by analogising them with billiard balls.

Critical realism is not the first to note the function of metaphor in scientific studies: Max

Black, Mary B Hesse, and Richard Boyd all provide detailed articulations about this method.

In 'Metaphor and Critical Realism', Paul Lewis' concept of metaphor are influenced by these

scholars. He pays attention to their articulations about the function of a metaphor, ignoring

their accounts of the construction of metaphor. Mathematical models can be employed in the

construction of metaphor, and, thus, in the cognition of causal mechanisms. A metaphor

relates one subject with another. Let us consider the subject in consideration as the primary

subject, and the other subject as the secondary one. To establish a metaphor, relationships

have to be identified between a primary subject and secondary subject. These relationships

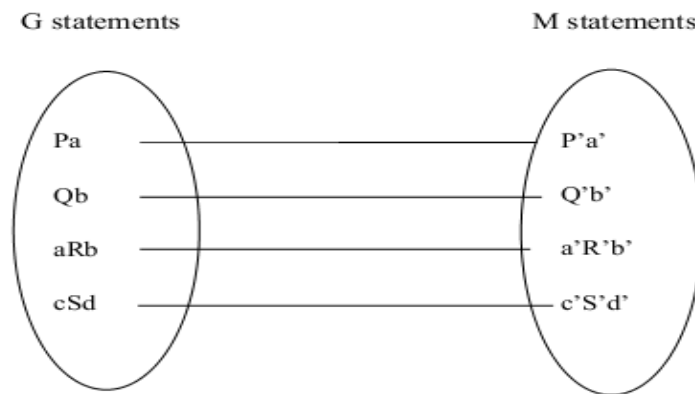
are presented as a net: it maps different features of one subject onto the features of the other.

As Max Black states,

The maker of a metaphorical statement selects, emphasizes or suppresses, and organizes features of the primary subject by applying to its statement isomorphic with the members of the secondary subject's implicative complex. (Black 1990, 60; emphasis added)

Providing a cluster of statements about a primary subject and set of statements about a secondary subject, one-one correspondences are established between the statements of them.

Hence, the relationship implied by a metaphor is shown as:



In terms of Black (1990, 62), 'P is uniquely correlated with P', a with a', R with R', and so on'. Hence, 'the two systems have, as mathematicians say, the same "structure"; they are isomorphic' (Black 1990, 62). With the construction of this isomorphic system, I think a mathematical model will be formulated. This model does not represent events patterns produced by the primary subject. Rather, it stands for the mapping-on relationship between two kinds of subjects, which relates to different causal mechanisms respectively. Mary B Hesse demonstrates this in *Models and Analogies in Science*.

Furthermore, metaphor in sciences is different from ordinary metaphor in daily lives. First, properties selected by metaphors; statements are in a relationship; they cannot be selected randomly. Second, the relationship between properties is causal. To quote Boyd,

The properties (relations, etc.) that constitute the definition of a homeostatic property cluster kind are united causally rather than conceptually. Such a kind is defined by a family of properties that are causally united in nature: there are causal mechanisms ('homeostatic' mechanism to use the metaphor I prefer) that tend to bring about their co-occurrence (Boyd 1993, 484).

Since there is a correspondence between the properties clusters of a primary subject and that of a secondary subject, it is concluded that the properties of a secondary subject covered by a metaphor are united causally. This concept is compatible with critical realism: retrodution, which needs metaphor, aims to reveal causal mechanisms producing events. If that is the case, critical realists ought to be confident that phenomena selected by them direct us towards causal mechanisms. This confidence could be supported by the secondary subject employed in a metaphor. The properties of a secondary subject, which are covered by a metaphor, are known to inform a causal mechanism. Since a metaphor corresponds these properties with the features of a primary subject, there is reason to believe that these features direct to a causal mechanism.

This strategy, however, implies methodological closure. According to critical realism, closure is established if an event pattern, which informs the operation model of a causal mechanism, is revealed. The possibility of establishing this closure is the condition for the employment of the formalistic method. Hence, an experiment is consistent with the application of mathematics. Experiment, however, is not the only way to identify the pattern of events and its linkage with causal mechanisms. Scientists could do this by metaphor. Hence, metaphor contributes to methodological closure.

In this section, I discussed Lawson's concept: closed systems are necessary conditions of the employment of the formalistic model. However, since closed systems are rare in a social realm, the scope of the application of this method is limited. I discussed this statement by distinguishing an ontological closure from a methodological closure. In both cases, Lawson's argument is problematic. With respect to an ontological closure, the temporal-spatial extension of a closed system has to be considered for the validity of Lawson's idea. However, this does not support the argument, to the extent that a local open system could be explained by referring to a correlated closed system. Hence, whether an open system excludes mathematics or not depends on the case. With respect to methodologically closed systems, first, Lawson's argument about the unavailability of experiment in social sciences is weak.

For one thing, it is based on the assumption of free agents, which is defined as the possibility of 'could have done otherwise.' This possibility is logical. It makes no difference about the study of the freedom of agents. Nor does it argue that a social realm contains more uncertainty than nature: social agents could have done otherwise; the solar system could have not been as it is now. For another, the fact that the realisation of social structures' tendency must be influenced by social activities cannot argue for the absence of experimental conditions. Also, it cannot provide positive information about this absence. Since being mediated by human activities, it is argued that the possibility of bringing otherwise effects but not the given one is necessary. This statement is logically implied by 'it is possible to bring an otherwise effect'. Second, perhaps the more important is, the critical realist methodology does not exclude the employment of the formalistic model and the construction of closures. Metaphor, for instance, is consistent with the usage of a model representing the relationship of a primary subject with a secondary subject. In addition, features selected by metaphoric statements are causally unified, so that a causal mechanism is directed. In terms of critical realism, events patterns inform causal mechanisms; events patterns characterise closed systems. Hence, metaphor implies the construction of a closed system.

5.4 Conclusion

Compared with Bhaskar's theory, Archer's rejection of methodological individualism is stronger. As I demonstrated in Chapter Four, Bhaskar's theory is potentially consistent with methodological individualism. Bhaskar's concepts of emergence are ambiguous. His theory is compatible with the composition concept of emergence, which states that a whole is irreducible to its parts. Therefore, the question, 'how do social structures influence social phenomena?' is reduced to the question of the effect of social structures upon social actions. The effect of social structures upon social phenomena cannot be analysed separately from their influence upon social actions. Furthermore, Bhaskar does not address the question that how social structures causally influence social actions, although he confirms that social structures pre-exist social agents. This provides methodological individualism with the chance to explain the realisation of this influence in terms of only individual properties. As a consequence, although the ontological status of social structures is established, their position in explanation is weakened. Archer's rejection of methodological individualism is more successful than Bhaskar's, in that her theory supports the notion that the effects of social structures upon social phenomena are analysed separately from their influence on social actions. This is ascribed to her analytical dualism, 'a methodology based upon the historicity of emergence' (Archer 1995, 66). Analytical dualism is based on two principles: analytical

separation and temporal distinction. The former underlines that both structures and agency have their own properties. As a consequence, they are capable of casually influencing each other. Nevertheless, analytical separation does not imply the happening of this causal influence. Therefore, it does not imply the temporal distinction between structures and actions. My arguments in this chapter demonstrate that firstly, this temporal distinction presupposes causation between social structures and actions. Secondly, there is a need to clarify the cause and the effect in this causation. The effect in this causation is the activities which are identified or constituted by the differences made by social structures. The fact that activities by agents are discontinuous implies that social structures have an independent influence upon structural maintenance. As a consequence, the effect of social structures upon social phenomena is analytically separate from their influence on social actions.

Another difference between Archer's and Bhaskar's theory is her attitude toward hermeneutics. This is demonstrated in her critique of Giddens' structuration theory. Bhaskar states that society differs from nature, because it is activity- and concept-dependent. By activity-dependent, Bhaskar means that social structures, on the one hand, are the causes of social actions, in that they make a difference to agents' actions. On the other hand, they exist only in virtue of the actions influenced by them. As a consequence, social structures are both

causes and effects of social actions. This notion is compatible with Giddens' theory. Giddens maintains that with reference to the process of social praxis, social structures are enabling social activities, and *simultaneously* being reproduced by activities. In addition, Bhaskar argues that social structures are concept-dependent. Hermeneutics is, thus, required by social sciences. The occurrence of social actions presupposes that agents occupy the social positions which constitute social structures. As a consequence, the actions by agents are entry points through which scientists capture social structures. Because social structures are concept-dependent, Bhaskar states that scientists could disclose the real definitions of social structures through the concepts of social actions embedded in agents' experience. This method is named by Bhaskar as a scientific transcendental argument. Archer figures out the compatibility between Bhaskar's and Giddens' theory. As she states,

Bhaskar displays some qualms about adopting the analytical dualism between the two upon which the workability of his TMSA depends. The vexatiously unique character of the social makes many of Giddens's ways of grasping it particularly appealing. This is the seductiveness of central conflation and it signals the start of another game. (Archer 1995, 141)

The approach taken by Archer to distance Bhaskar's theory from structuration theory is to underpin the concept that social structures at present depend on actions in the past and causally influence actions postdating them. As a consequence, the concept implied by

Giddens' strategy, 'these structures, because of these people here present', is rejected.

Similarly, when considering the relationship between structures and concepts, Archer (1995, 147) argues that firstly, 'the concept dependence of such structures can be affirmed in only one acceptable way: by reference to the concepts (ideas, beliefs, intentions, the compromises and concessions plus unintended consequences) of the long dead'. Secondly, she underlines that social structures resist, even if there is 'profound conceptual disagreements between agents about their doings and their shifting concepts of what structures are like'. As a consequence, hardly could scientists capture the real definitions of the social structures by proceeding from the present agent's incoherent concepts of social actions.

Another subject of this chapter is Lawson's economic theory. Lawson condemns mainstream economics for abusing the deductivist method. As a replacement, he suggests retrodution and contrast explanation. His theory is based on the critical realist ontology of society conceptualised by Bhaskar. Firstly, Bhaskar argues that like nature, society is an open system in which many social mechanisms (or structures) operate. Because the operation of one mechanism is interfered by others, the event pattern which would have been produced by this operation is absent in a society. To this extent, society is an open system. Unlike natural scientists, social scientists cannot establish closed systems in a laboratory, because social

structures are concept and activity dependent. Secondly, Bhaskar states that society does not consist of only individuals. It includes social structures, the operation of which is regular.

Therefore, the scientific studies of a society are to capture those social structures behind social actions. In agreement with these concepts, Lawson criticises the deductivist method employed by mainstream economics. Firstly, the ontological presupposition of this method is atomism. This is incoherent with critical realist ontology. Secondly, the method is applicable to only closed systems. I think both of these notions are problematic.

Firstly, Lawson underlines that the ontological presupposition of mainstream economics is atomism but not empiricism. This concept supports him in the critique that Lawson wrongly bonds mainstream economics with empiricism. I do not think Lawson's self-defence is successful. For one thing, the linkage between atomism and deductivism cannot be established without the medium of empiricism. For another, mainstream economics is characterised as 'deductivism', 'mathematical formalism' and 'mathematical-deductivist modelling'. The interchangeability of these terms presupposes that deductivism, mathematical formalism and mathematical-deductivist modelling approve empiricism, which reduces causal laws to event regularities. Lawson underlines that deductivism is an explanation model which employs the statement that 'whenever event x, then event y'. As a consequence, deductivism has a potential for mathematical formalism; the elementary form

of which is ' $y = f(x)$ '. In terms of Lawson, this model of explanation presupposes that the essence of causal laws is event regularities. As a consequence, it is appropriate to only closed systems. In addition, according to Lawson, deductivist explanation presupposes empiricism, because it employs the statement that 'whenever event x , then event y '. This argument, however, is questionable. The vindication of it is based on a referential theory of meaning. Because Lawson does not clarify his standpoint on this issue, his argument is compatible with logical positivism. In this case, Lawson is in a dilemma: on the one hand, his argument is supported by logical positivism; on the other hand, his ontology is against positivism.

Secondly, I think Lawson's arguments of the notion that the necessary condition of the employment of the deductivist method is closed systems are weak. Firstly, Lawson does not distinguish an ontological closed/open system from a methodological closed/open system. Given this distinction, secondly, Lawson's notion is neither ontologically nor methodologically valid. With respect to ontology, society is as ontologically open as nature, to the extent that event patterns are absent in society as well as in nature. Nevertheless, mathematical modelling is available to study nature. As a consequence, society being an ontological open system is insufficient to argue for the inapplicability of mathematical modelling in social sciences. As a replacement, Lawson formulates the concept of

demi-regularities. This concept underlines the temporal-spatiality of systems. However, the problems are not solved. For one thing, Lawson does not clarify whether identification of a system relies on a social mechanism or on the standpoint taken by a scientist. For another, Lawson does not clarify the relationship between demi-regularities and strict local regularities. In addition, Lawson's concepts of demi-regularities open to a condition under which mathematical modelling is applicable to study open systems: a closure is the reference point on which scientists study open systems. In this case, Lawson's theory is logically incoherent: on the one hand, deductivism is prohibited in the study of open systems; on the other hand, it is available to study some open systems. Considering methodology, Lawson argues that the deductivist method is inapplicable to study society, because social scientists, unlike natural scientists, cannot establish closed systems. As replacement, Lawson formulates the method of retroduction. With the assistance of metaphor, retroduction reveals social structures by proceeding from social events. There are two problems with these arguments. Firstly, Lawson states that social scientists cannot establish closed systems, because agents always could have acted otherwise. This argument, I think, is weak. The necessity of 'acting otherwise' is merely a logical possibility. It is insufficient to support the difference between natural sciences and social sciences. Secondly, the method suggested to study open systems is

compatible with the establishment of closure. Metaphor contributes to the formation of the mathematical model, which represents the correspondence between two systems.

It is noted that both Archer's morphogenetic approach and Lawson's retrodution are based on the general ontology formulated by Bhaskar. Firstly, social structures are ontologically irreducible to agents. Secondly, social structures causally influence social actions; social actions affect social structures. Given these concepts, Archer provides a general picture of the interplay between social structures and agency, and Lawson states that retrodution, in general, reveals social structures by proceeding from social events. In Chapter Six, I will demonstrate how these general methods are applied in reading and developing Marx's theory of capitalism. It will demonstrate that, firstly, the application of the critical realist method follows the genus-species, universal-particular approach. It presupposes that critical realist methodology is generally applicable in social explanation; its application is irrelevant to the historical and social context in which scientists are located. This distinguishes critical realism from Marxism.

Chapter 6 Critical Realism on Marxism

6.1 Introduction

According to some critical realists, critical realism supports Marx's theory of capitalism.

Firstly, it criticizes the enemy of Marxist economics: mainstream economics. It argues that the method taken by mainstream economics is inapplicable to the study of social reality.

Secondly, critical realism not only delineates the method employed by Marx, but also justifies it through critical realist ontology.

The previous chapters of this thesis explored critical realist ontology of society and critical realist methodology. Chapter Three provided the detailed arguments of Bhaskar's ontology.

Given this ontology, Bhaskar conceptualises the transformational model of social activity.

Chapter Four firstly depicted Archer's morphogenetic approach. Given the ontological status of social structures and agency, Archer outlines the cycle of the maintenance/elaboration of a social structure. This cycle has three phases: structural conditioning, social interaction and structural elaborating. Secondly, in Chapter Four, I clarified Lawson's critique of mainstream economics. Mainstream economics is condemned for its widespread employment of a deductivist method. This method is only available to closed systems. It is not applicable to study social reality, not only because society is an open system but also because social

scientists cannot establish closed systems. As a replacement, Lawson suggests contrast explanation and retroduction. Proceeding from social events, scientists retroduce the social structures required for the production of these events.

Given these preparations, I think it is time to address the question of how critical realism works in reading and developing Marx's theory of capitalism. In section 6.2, I will analyse the debate between Nielsen and Morgan and Fine. Fine states that critical realism is neither critical enough nor realist enough. Because critical realism is not critical enough, it is not capable of defending Marxism against mainstream economics. Critical realism is not realist enough, in that it does not provide substantive theories of capitalism and capital. Nielsen and Morgan reply to this critique. Central to their argument is that critical realism does not separate methodology from substantive theories. The subject of critical realism is substantive economic theories. It is possible that critical realism is ignored by economists. Nevertheless, there is another possibility that critical realism reorients economics. In addition, critical realism does not preclude developing substantive theories of capitalism. Finally, considering the relationship between Marxism and critical realism, Nielsen and Morgan argue that Marxism is multiple. As a consequence, critical realists who employ critical realism to interpret Marxism could find their positions within the boundaries of Marxism.

I think the debate between Nielsen and Morgan and Fine offers an insight into attempts to read Marxist economic theory in terms of critical realism. Given the multiplicity of Marxism, critical realist reading, as well as Fine's understanding, of Marx's account of capitalism is one version of Marxism. This, however, is not a way to solve the debate between Fine and critical realists. To assess critical realist interpretation of Marxism, there is a need to analyse its reading of Marx's account of capitalism. In Fine's view, it is the socio-historical context that provides Marx with the condition to configure his method. Critical realist methodology, in contrast, is based on a general ontology. Therefore, it is trans-historical. If we read Marx's theory in terms of critical realism, then Marx's account of capitalism is an example of the application of this trans-historical method.

In Section 6.3, I will analyse Fleetwood's interpretation of Marx. Fleetwood is a good example, because his theory is influenced by Bhaskar, Lawson and Archer. I will evaluate Fleetwood's theory with respect to my interpretation of Marx in Chapter One and Chapter Two. This way facilitates the demonstration of the difference between my understanding and Fleetwood's understanding of Marxism. Firstly, I will argue that Fleetwood's reading follows a genus-species and universal-particular approach. Secondly, I will analyse Fleetwood's interpretation of the labour theory of value.

6.2 The Debate Between Nielsen and Morgan and Fine

Fine opposes critical realism with Marxism. He argues that critical realist methodology is ahistorical, whilst the method adopted by Marx has a socio-historical context. Therefore, the account of capitalism by Marx is not the outcome of an application of ahistorical methodological principles. Following this, an ontology justifying its methodology is irrelevant to Marxist economics. This conclusion is implied in a cluster of articles: ‘Addressing the Critical and the Real in Critical Realism’, ‘Debating Critical Realism in Economics’, ‘Rethink Critical Realism: Labour Markets or Capitalism?’, and ‘Critical Realism and Heterodoxy’.

In Fine’s view, critical realism is unable to guarantee Marxist economics against mainstream economics. It is not critical enough, as it has affinities with mainstream economics. As Fine states, critical realism shares three features with the mainstream ‘which are liable to blunt its critical edge’ (2004, 207). First, both critical realism and mainstream economics rely on the division between methodology and theory. The major difference is that critical realism’s emphasis is upon methodology, whilst the mainstream is on the opposite side.¹³¹ Mainstream

¹³¹ To quote Fine, ‘First, mainstream economics in practice proceeds as if theory is everything and methodology is nothing. On the basis of the most superficial understanding, and as a seal of approval, it deploys the words

economics is not interested in the attack from critical realism, because its issues are irrelevant to the preoccupations of critical realism. The intervention into mainstream economics by critical realism requires its rejection of the separation between methodology and theories. As Fine (2004, 207) states, because critical realists approve of the fallibility of critical realism, ‘one would expect the relationship between methodology and theory to be variable and not fixed, depending upon circumstance’. If the separation between methodology and theories is falsified, then critical realism could intervene in mainstream economics. Ironically, this variability undermines the foundation on which critical realism relies: the division between substantive theory and methodology. Therefore, critical realism is in a dilemma: for the effectiveness of its critique, the methodology-theory separation has to be disposed of; for the legitimacy of its critique, the separation has to be defended.

Given the dichotomy between methodology and theory, the viewpoint with which critical realism evaluates the mainstream is outside the domain of economics. Consequently, critical realism situates itself as a God’s eye for assessing economics. Therefore:

scientific and rigorous, primarily in the deductivist fashion exposed by critical realism. Essentially, critical realism accepts this division between methodology and theory. The major difference is that its emphasis is upon methodology rather than theory’ (2004, 207).

In parallel with the mainstream, critical realism also exercises its own ‘policing’. Where the mainstream rejects thought and thinkers that do not conform to its own, inadequate and erroneous, notions of rigour and science, critical realism sets about delineating theory according to its own prescriptions and proscriptions. (Fine 2004, 207)

This way of understanding economics, In Fine's (2004, 207) view, leans towards reductionism. A specific economic theory, whatever its contents and terms, is qualified with respect to critical realism. Herein lies the questions of whether or not critical realism properly characterises mainstream economics, and whether critical realism is the only way to review mainstream economics. Fine’s answers to these two questions are negative. Critical realism condemns mainstream economics for its closed ontology and deductivist methodology.

According to Fine (2006a), this characterisation of the mainstream is ‘wrong and limited’. As an alternative, mainstream economics is characterised by its technical apparatus, such as utility and production function, and by assumptions accompanied with the employment of these apparatus (Fine, 2006a). As a counterpart to this critique of critical realism, Fine (2006a) states that the characterisation of heterodox economics by critical realists is selective.

In addition, according to critical realism, the legitimacy of economics being a separate discipline is under suspicion. This stance is similar to economics imperialism (Fine 2004, 208). According to Lawson (1997b, 31), economics is not a distinct social science because it

does not have a study domain of its own. This is a result of the fact that the property of being economic is not an emergent property: the economic domain is not an emergent domain.

Specifically, supposing economics is a distinct discipline, firstly there are economic acts which ought to be explained in terms of economic structures; and secondly not all acts are economic: there is at least one act, the properties of which are not economic. Economics is not a separate science because the second condition is not satisfied. To quote Lawson,

I cannot think of a single sphere of human activity – from lending support to a football team, to listening to music, or even to making love – that does not (or could not) have economic aspects ... These and all other activities take place in space and time, both of which can have alternative uses. All human activities require material conditions and are, for example, influenced by property relations, the length and structure of the working “day” or “week”, opportunities forgone, and so on. But at the same time very few activities, if any, have merely an economic aspect, even including those of labouring on the shop floor or in an office or doing the shopping. (Lawson 1997b, 31)

Fine attributes Lawson’s conclusion to the distinction between methodology and substantive theories.¹³² He also states that Lawson’s argument relies on a trans-historical foundation (Fine 2004, 201). Nevertheless, Fine does not provide detailed arguments. I think his statements are justified in two ways. For one thing, the rejection of economics as a distinct discipline is derived from Lawson’s understanding of social sciences. Firstly, the

¹³² Fine states, ‘Third, as a further corollary of the first point, critical realism holds an ambiguous position on the legitimacy of the economy as a separate domain of study, a stance that has been characteristic of the vast majority of mainstream economics from the marginalist revolution until recently’ (2004, 208). The ‘first point’ mentioned in this paragraph is the distinction between methodology and theory.

explanandum of social sciences are social activities; the *explanans* in social explanations are social structures, social positions, social mechanisms and social processes.¹³³ Therefore, the objects of economics are economic activities, which are explained in terms of economic structures. Second, the irreducibility of social sciences to natural ones depends on two facts: *some* natural objects are picked out by their possessing of social properties, and social properties cannot be reduced to natural properties. Because the object of social sciences is human actions, it is concluded that human practices are the object which is not only natural but also social. In Lawson's view, being social is defined as being dependent on human agency (Lawson 1997b, 14). Hence, human actions are intentional human doings (Lawson 2003, 46). This corresponds with Lawson's concept of human agency: human agency comprises subjective aspects, which arise from the brain but cannot be reduced to any neurobiological aspect (Lawson 2003, 43). Supposing economics is independent, then *some but not all* social actions are characterised by their economic properties. However, this is impossible – not because economic social actions do not exist, but rather because all social actions are economic. Hence, being economic is not an emergent property; economics is not a separate discipline.

¹³³ To quote Lawson (1997b, 30-31): 'The social world, in all its aspects, turns upon human practice, the *explanandum* of all social enquiry. And, whatever the practices of interest, the *explanans* of social explanations appear to be structures, positions, mechanisms, processes, and the like'.

If we go further, it is notable that Lawson's account of the philosophy of social sciences draws on the critical realist philosophy of science. In 'Economics as A Distinct Social Science?' Lawson demonstrates, 'I have referred mostly to the sciences of nature. But we can be clear that the conception of science elaborated applies as much to the social realm as to the natural'. In the philosophy of science, the general picture of nature is defined by abstract concepts: for instance, 'mechanisms', 'structures' and 'open/closed systems'. These concepts are used to describe society. As natural mechanisms, social structures are real. They cannot be reduced to social events, that is, social actions. They possess causal powers to influence social actions. What specifies social structures is their dependence on human agency. With respect to his theory of economics, I think Lawson follows the universal-particular approach (or the genus-species approach). He states,

This is a state of affairs that, in recent years, has been addressed and rendered intelligible by analyses drawing upon insights from the philosophy of science applied to social phenomena. My goal here is simply to examine whether these same philosophical insights can in some way be brought to bear in determining a sustainable assessment of the subject-matter of economics and identifying where, if anywhere, the limits of the discipline might lie. (Lawson 1997b, 8)

In Lawson's strategy, a trans-historical description of the world is a priori. The attachment of this description to a specific domain, such as society and economics, is realised by identifying objects' species differences.

Fine also states that critical realism is not realist enough, because its methodological analysis does not address capitalism or capital. For one thing, in critical realism, the key concepts such as structure and tendency are underdeveloped in substance (Fine 2004, 215). Firstly, these concepts are abstract. It is easy to attach them to particular examples. Therefore,

Critics of critical realism, such as Hausman (1998: 211), can cheekily get away with suggesting that mainstream economics deploys causal tendency or force on a par with alternatives, simply by virtue of a proposition such as agents preferring larger to smaller bundles. (Fine 2004, 215)

Secondly, these concepts cannot be developed unless their contents are historically and socially limited. This can be attributed to the fact that the objects to which concepts attach are historically contextual. An object, whether natural or social, emerges from history. Therefore, capturing the essence of this object requires an acknowledgement of its particularities produced in history. However, the concept based on which critical realism provides methodological analysis is trans-historical.

Additionally, Fine states that there is a tension in critical realism. On the one hand, critical realism argues that transitive knowledge of what happened, and is happening, is open to be falsified, because scientists are socially located. Their understanding of what happened / are happening is ‘socially constructed not least in the conceptual apparatus by which they are addressed’ (Fine 2004, 217). Therefore, the awareness of social background is required. This implies that economic methodology is socially contextual. An account of capitalism and capital is significant for one’s consciousness of the social context of economic methodology. On the other hand, however, an account of capitalism is absent from critical realism (Fine 2004, 217). The critical realist account of economic methodology is mainly based on universal concepts – for instance, open and closed systems; it is not related to capitalism. Although it is claimed that their ontology is influenced by capitalism, they firstly lack any articulation about the relationship between their theory and capitalism. Secondly, their study of capitalism presupposes this ontology. Thirdly, despite being fallible in principle, this ontology cannot be rejected in practice: critical realism is defined by this ontology.

In addition, critical realist methodology is ahistorical. Lawson’s interpretation of Paul David’s path dependence is taken by Fine as evidence. Lawson states that path dependence is

consistent with critical realism, because David's theory considers the reproduction and transformation of social structures in history. To quote Lawson,

Examples ... gathered under the path-dependence heading, illustrate well some aspects of what an account of social reproduction/transformation will often involve. In particular, the emergence of structures can be heavily dependent on context, but once established, the very interactive, situated and continuity-preserving nature of human life is such that there are likely to be tendencies in place for the selected structures to get 'locked-in'. David's work admirably illustrates and provides comprehension of this process. (Lawson 1997a, 251)

Therefore, the principles applied in economic explanation are not a priori presumptions, rather they are proposed, developed and established as presumptions in history. To this extent, they are not universal. As a consequence, Lawson (1997a, 249) infers that mainstream economics' explanation model is invalid: mainstream economists derive the explanation of a specific *explanandum* from general principles that are taken for granted.

Lawson's approval of path dependence is challenged by Fine, because David's method is trans-historical. What Fine (2004, 218) underlines is 'the conscious use of history itself as the source of critical concepts as opposed to the *ex post* imposition of models and path dependence upon history'. The consideration of history is insufficient. It is more important to study social phenomena through a historical method.

Peter Nielsen and Jamie Morgan have defended critical realism against Fine's criticisms.

Central to their argument is that critical realism does not separate methodology from substantive theory. Fine states that critical realism is not critical enough, because it cannot engage with the mainstream on the basis of methodology-theory division. This, according to Nielsen and Morgan, is a misunderstanding of critical realism. To quote them,

It is worthwhile considering here what thinking about critique in the way that Fine does assumes about the work of Lawson and his colleagues. To begin with, it assumes that there is an analytical equivalence between methodology that does not develop theory, and theory that is ignorant of its own methodological implications, as in the mainstream. This is a problematic assumption. The basis of methodological analysis is to ask what different forms of theorisation presuppose, and what the consequences are of beginning from those presuppositions for the development of theory and of the field in general. Critical realists pose such questions in terms of the idea of the realism of those presuppositions. (Nielsen & Morgan 2006, 96)

Critical realism does not polarise methodology and theory, neither does it hold that the critique of the mainstream is realised only by methodological analysis. Rather, the methodological statements made by critical realism deal with substantive theory, the condition from which the critical realist account proceeds. Take mainstream economics for example: proceeding from substantive theories, critical realists abstract their common element - their deductivist methodology. From the viewpoint of critical realist ontology, the

methodology of mainstream economists is questionable: the economy is open, whilst a deductivist method is applicable to only closed systems (Nielsen & Morgan 2006, 93). In contrast, heterodox economics is supported, because its methodological presupposition is consistent with critical realist ontology – for instance, it underlines the ontological status of social structures. The methodological analysis by critical realism is about substantive theories. Therefore, if critical realism is inefficient in criticising mainstream economics, this can hardly be attributed to its separating of substantive theories from methodology.

In Fine's view, the critique of mainstream economics is ineffective, because it fails to engage with economic theories. The success of critique, according to Nielsen and Morgan, is 'essentially a problem of effective persuasion' (Nielsen & Morgan 2006, 94). Effective persuasion does not depend on the formulation of substantive theories. First, critical realism rejects mainstream economics through its approval of heterodox economics. Heterodox economics is on the opposite side to mainstream economics. Despite being made up of theories, heterodox economics is ignored by mainstream economists (Nielsen & Morgan 2006, 98).

In addition, critical realist methodology could function by supporting heterodox economics.

Heterodox economics might ignore critical realism like mainstream economists. However,

this is only one possibility in practice:

Here, one cannot discount the possibility that critical realism might be hampered in its approach to other heterodox currents, and as a substantive alternative to the mainstream within heterodoxy, by its lack of theory. This is an open issue of practice, however. To assume that critical realism is strategically hampered on this basis might imply one or both of two possibilities. (Nielsen & Morgan 2006, 99)

In other words, the possibility that critical realist methodology contributes to heterodox economics cannot be excluded. The stance by Nielsen and Morgan is that everything is possible; nothing should be condemned before being tried.

The second issue is whether critical realism is insufficiently realist. In Nielsen and Morgan's view, Fine's argument is based on his misinterpretation of critical realism: critical realism separates methodology from theory; it therefore lacks an account of capitalism and capital.

Hence, critical realism is not realist. According to Nielsen and Morgan, this condemnation is not valid. For one thing, for Lawson, the definition of realism is philosophical; 'it is not "real" in the sense that Fine is interested in' (Nielsen & Morgan 2006, 103). The issue of philosophy is different from the issue of sciences. According to critical realism, social

sciences are first-order knowledge; philosophy is second-order knowledge: 'It is knowledge of the necessary condition for the production of knowledge' (Bhaskar 1998, 8). Critical realism proposes that the production of knowledge is permitted by the ontological structure of this world. It is against empiricism. Empiricism argues that the world consists of events, and the essence of causal law is regularity. On the contrary, critical realist philosophy argues that there are generative mechanisms, the operation mode of which founds causal laws. For Fine, critical realism is insufficiently realist because Lawson does not provide first-order knowledge: an account of capitalism. This critique misses the point. An account of capitalism is the target of social sciences, whereas Lawson attempts to provide a philosophy of economics. As Nielsen and Morgan (2006, 103) state, 'Lawson's work is no more or less than the application of realist philosophical discourse of a particular kind to a particular sphere – economics'. Additionally, although Lawson's work is limited in substantive theory, it does not follow that critical realism precludes 'theoretical development and substantive claims about reality' (Nielsen & Morgan 2006, 103). As an example, critical realists, such as Bob Jessop, formulate a theory of the contemporary state by combining Marxism and critical realism. Fine also polarises Marxism against critical realism, because critical realism is ahistorical whereas Marxism is not. This opposition is dissolved by appealing to the multiplicity of Marxism. The diverse ways of developing Marx's theory indicate that the

boundary of Marxism ought to be broadly conceived. Therefore, critical realists who combine Marx's theory with critical realism locate themselves within the boundaries of Marxism.

I do not think Fine rejects the possibility of opening up to critical realist methodology. What Fine is concerned with is *how* to actualise this possibility: reorienting economics. The lack of substantive theories, according to Fine, hinders the realisation of this possibility. In the view of Nielsen and Morgan, the objects of critical realism are substantive theories. Critical realism is a scheme of grouping substantive theories. Heterodox economics is distinguished from mainstream economics in terms of its methodology and ontological presupposition. It is supported by critical realism because the ontology presupposed by it is compatible with critical realist ontology. Critical realism could hardly gain the ability to reorient economics only through grouping theories. Its subject matter is different from the subject matter of economics: the former is about the features of theories; the latter is about substantive phenomena. If economists are not interested in the issue underlined by critical realism, it is difficult for critical realism to reorient economics. As Fine states,

While it is important to have a critique of the mainstream for its (deductivist and deterministically closed) methodology, it is equally if not more important to address its theoretical substance, not least since it is the way in which it will be most commonly presented and used by practitioners. (Fine 2006b, 127)

Similarly, critical realism argues that various schools of heterodox economics share ontological presuppositions. Nevertheless, these commonalities are insufficient for the co-development of different heterodox theories. Even if it is agreed that heterodox traditions presuppose the same ontology, it is a *fact* that they develop different theories. As a consequence, compared with the identification of commonalities, the understanding of divergences between theories is more important for the co-development of heterodox traditions.

In addition, I think Nielsen and Morgan's rejoinder omits one central point in Fine's statements: the methodological analysis of critical realism is trans-historical. Although critical realism could provide substantive theories of socio-historical phenomena, the conceptualisation of these phenomena is an application of a trans-historical methodological formula. I think Fine's emphasis is upon the usage of instruments in developing a theory rather than upon the relationship between a given theory and society. Because a theory is about a social phenomenon, it is concluded that Fine is more concerned with the way scholars explore their objects. Compared with critical realism, Fine considers research practices rather

than given substantive theories. Therefore, his definition of mainstream economics is broader than that of critical realism:

Enduring commitment to this technical apparatus explains the persistence but not the necessity of equilibrium, efficiency, laissez-faire ideology, the optimising individual and so on. To a large extent, even those approaches on the edge within the mainstream take this technical apparatus at least as point of departure, adding other forms of behaviour or modifying technical assumptions or, because institutions, history, path dependence, aggregation now matter, glorifying previous inconveniences as the way forward to add wrinkle or complexity. In this sense, CRE [critical realism in economics] and orthodoxy are situated towards opposite extremes of analytical interpretation – one tending only to see ontology and the other only technical apparatus. Both are right but partial in terms of the orthodoxy's character. The specification of the orthodoxy is not a fixed ontology nor a fixed technical apparatus but a shifting historical logic that welds the two. (Fine, 2006a)

6.3 Fleetwood's Reading of Marx

6.3.1 The Application of Critical Realism: From the Universal to the Particular

Nielsen and Morgan state that critical realism is employable to explain substantive phenomena. The substantive theories are configured through the shift from the genus to the species, from the universal to the particular, and from the common to the different. The critical realist project of social explanation is outlined by a general ontology of society (see Chapter Four). This ontology is universal; its objects are the general features of society. It is irrelevant to the specificities of social structures and of social activities: their types and their historical features.

The application of the general frame to explain substantive social phenomena implies its specification. Firstly, a specific social phenomenon is identified as the *explanandum*. Secondly, because social activities are the starting point to construct an explanatory scheme, scholars define the type of social activity which is bound up with the social phenomena in consideration. By proceeding from these kinds of social activities, specific kinds of social structures are retroduced. They are identified as the preconditions of social activities. The third step is to switch to a more specific level. A number of social activities are members of a class. A specific social activity is discerned in terms of its difference from the other members. The difference is historically contextualised. It directs a scholar to recognise the special feature of a social structure which is temporal-spatially located. The method employed in this step is contrast explanation.

Fleetwood's interpretation of Marx is an example of the application of the critical realist project. According to Fleetwood (1997, 127), 'In Marx's work on value, utilizing social structures in the form of relations of production, commodities and the value forms, he adopts a CR [critical realism] perspective'. He frames Marx's explanation of capitalism in terms of critical realism: social reality being stratified, transformational mode of social activities, contrast explanation and retroduction.

According to Fleetwood(1997, 128), critical realism states that the world is layered and transformational. The idea of a layered world underlines that the world, including nature and society, is stratified. The reality consists of three domains: the real, the actual and the empirical. A causal law lays its ground in the real domain, in which generative mechanisms operate. In addition, critical realism argues that society is transformational. This proposition is based on the transformational model of social activities in *The Possibility of Naturalism*. On the one hand, social structures pre-exist and influence social activities. On the other hand, however, the reproduction of and the transformation of social structures depend on agents' activities.

According to Fleetwood, this ontological picture attaches to Marx's theory. Firstly, Marx adopts the view that a capitalistic society is stratified. In Fleetwood's (2001a, 67) view, Marx's stratified socio-economic ontology is expressed as:

Domain	Entity
Empirical	Exchange of money for commodities
Actual	Co-ordination of the labouring activity of millions of atomistic producing units
‘Deep’	Material-technical and socio-economics relations; private property, alienated labour, the state, and so on

Not only does Marx approve of a layered ontology, he also agrees with the transformational model of social activities (Fleetwood 1997, 140). To be specific, deep social structures pre-exist and precondition labouring activities by isolated agents; also, they are transformed or reproduced by social activities.¹³⁴ Therefore, proceeding from specific kinds of social actions, scientists identify specific social structures required by these actions. This is the method named retrodution.

Considering Marx’s study project, the specific social phenomenon in consideration is ‘the relations between people (as producing units) appear in the form of a relation between things (commodity)’ (Fleetwood 2001a, 67). The social activities involved in this phenomenon are labouring activities. Proceeding from this kind of activity, Fleetwood states that there are two

¹³⁴ Albeit Fleetwood does not clarify, the agent of labouring activities, or the individual production units, refers to a firm but not a labourer.

sorts of structures implied by it: material-technical structure and socio-economic structure.

Material-technical structures refer to the co-ordination between raw materials and machinery, both of which are required to produce physical objects. Produced commodities are able to satisfy the needs of human beings, in that they possess some natural properties. As a consequence, Fleetwood states that a material-technical process ‘results in the production of a good or service, and relates therefore to the domain of use value’ (2001a, 68).

A socio-economic structure conditioning is the structure in which labouring activities co-ordinate. According to Fleetwood, the labour processes presuppose co-ordination between labour agents. Otherwise, production cannot operate. Therefore, agents of labouring activities are situated in socio-economic relations. To quote Fleetwood (1997, 141), if ‘material-technical transformation is to occur, isolated producers must enter into production relations to co-ordinate and regulate their labouring activities’. Fleetwood (2001a, 68) states that socio-economic relations are spatiotemporally specific, in that the organisation of labouring activities differs fundamentally in space and between epochs. Since the social phenomenon at issue is the characteristic of capitalism, the next step is to reveal the features of capitalist structures. According to Fleetwood’s reading of Marxism, Marx identifies the

features of capitalism through contrast explanation: comparing capitalism with non-capitalism.

To be specific, Marx proceeds from a specific phenomenon in a capitalistic society: labouring activities under capitalism appear in the value form between commodities. In order to reveal the deep structures implied by this phenomenon, Marx compares capitalism with non-capitalism. He queries,

Why does labouring activity under capitalist conditions appear in the value form? Rather, I will ask: why does labouring activity under capitalist conditions appear in the value form when labouring activity under non capitalist conditions does not require this form? (Fleetwood 2001a, 67)

Fleetwood upholds that the answer provided by Marx is that, unlike non-capitalist society, labouring activities are co-ordinated through systematic exchange (market) in capitalism, but not through a central agent. He states,

A capitalist socio-economic system is one where labouring activity is carried out by millions of atomized, isolated, individual producing units ... these producers never meet to discuss the co-ordination of their labouring activities, nor are their activities co-ordinated by a central agency. Yet clearly their labour activity is co-ordinated (however badly) or the socio-economic system would grind to a halt. Labouring activities are indirectly co-ordinated via the systematic exchange of the products of these very activities, commodities. (Fleetwood 2001a, 70)

This will not impede Fleetwood from exploring the exchange between labour power and capital. The point is to transfer from a general level to a specific level. Labour-capital exchange is a particular exchange subordinating commodity exchange. A labour market is a species of commodity market. As the exchange between products, the exchange of labour power with wage is required by labouring activities. To quote Fleetwood:¹³⁵

In the capitalist modes of production, the co-ordination of labouring activities necessary for production to occur is, largely, dependent upon the exchange of the quasi-commodity labour for wages on labour markets. (Fleetwood 2011, 17)

The activities reproducing or transforming the labour market are classified into two kinds: one is ‘workers trying to gain employment’; the other is employers trying to recruit workers (Fleetwood 2011, 27-28). By starting from them respectively, a set of social structures are retroduced. Finally, the connections between these structures are established.

Fleetwood admits that his theory of labour market is general and universal. However, by following a genus-species approach, he could provide more detailed articulations about the labour market of a country. As Fleetwood states,

¹³⁵ With respect to this quotation, there’s an obvious difference between Fleetwood and Marx: he uses ‘labour’ rather than ‘labour power’.

This is an ontological claim about an underlying universal property. It says nothing whatsoever about country-specific socio-economic phenomena. But it could. I could easily augment this with empirical detail and make additional ontological claims about how firms operate with the levels of preparation already existing; about what these levels might be ... I could identify those countries with education and training systems that turn-out highly educated workers ... I could also identify other countries whose inferior education and training systems mean this will not be the case. And so on. The key point to note, however, is that both the first and subsequent sets of claims are ontological; they are claims about the way the world is. But both sets of claims are advanced at different levels of abstraction. (Fleetwood 2011, 25)

These statements demonstrate that the transition from the labour market in general to the labour market of a particular country relies on the identification of the distinctiveness of the education systems presupposed by this country's labour market.

Fleetwood's reading of Marx's theory is different from my understanding of Marx. In Chapter One of this thesis, I demonstrate that the situation of the capitalistic society in which Marx is situated provides him with the condition to construct his method of studying capitalism. Therefore, Marx's account of capitalism is not an application of a general scheme based on a realist ontology. Neither does his method of explaining capitalism follow the genus-species approach. To clarify the divergence of Fleetwood's interpretation with mine, I think there is a need to repeat my points from Chapter One.

Firstly, the basic device employed by Marx is the form of value: a direct equation between the values of produced commodities. The conceptualisation of this form is based on the objective situation of capitalism. Take ‘ x commodity A = y commodity B’ for example, the construction of this equation presupposes the prevalence of commodity production. The productive situation of commodity B (and commodity A) represents the average level of producing this kind of product B (and product A). Therefore, commodity B is the sample representing the average level of producing B. This way to explore production is supported by the prevalence of commodity production; capitalism satisfies this condition. Secondly, the equation is directed because an exchange action from which it is abstracted is asymmetric. The equation, ‘ x commodity A = y commodity B’, implies that the owner of commodity A exchanges it for commodity B. Therefore, commodity B is the equivalent form of the value of commodity A. The direction of this equation indicates the entry point taken by Marx to go into capitalism as an exchange. Thirdly, assisted by the concept of money, ‘ x commodity A = y commodity B’ is divided into ‘ x commodity A = z money’ and ‘ z money = y commodity B’. This corresponds to exchange in capitalism: the exchanges of commodities are mediated by money. Secondly, the most important is the form of value that facilitates Marx to go further beyond the interaction between social activities and social structures. For one thing, the

introduction of the concept of money contributes to conceptualising the subject matter of Marx: the increments of social capital. This phenomenon is described by the model: $M - C - M'$ ($M' > M$). Additionally, the introduction of money brings difference to the comparison of values. The values of all commodities are measured by money. Hence, despite no direct exchange between two produced commodities, their values are comparable provided they exchange with money. Until now, Marx makes preparation for exploring the exploitation of surplus value. The situation of capitalism provides the condition for his preparation.

6.3.2 Fleetwood's Interpretation of the Labour Theory of Value

Fleetwood states that in terms of critical realism, Marx's labour theory of value is a causal explanation of a specific phenomenon: 'Human labouring activity appears in an estranged or alienated form. It appears in the form of products that this labouring activity produces, namely commodities as value' (Fleetwood 2001a, 65). The explanation of this phenomenon starts from labouring activities and ends with the emergence of money via the contradiction between value and use value. As is demonstrated in the previous section, Fleetwood states that in Marx's view, the capitalistic socio-economic structure organising labouring activities is systematic exchange, and herein lies a question: what must be the case for systematic exchange?

Fleetwood (2000, 176) states that systematic exchange requires the systematic evaluation of produced commodities; that is, ‘the assignment of appropriate value magnitudes or exchange values’. The evaluation of produced commodities implies the commensurability of produced commodities, the nature of which, according to Fleetwood, can only be commodities that are the products of human labour. Fleetwood then argues that the labour which founds the commensurability of products is social, abstract and universal (SAU) labour. SAU labour is a counterpart of individual, concrete and particular labour (ICP labour). ICP labour indicates the particularities of commodities and their differences. Therefore, it is incapable of rendering the commensurability of commodities. As a consequence, Fleetwood (2000, 177) states that only SAU labour has the potential to ‘render incommensurable entities commensurate’.

Despite having this potential, SAU labour is insufficient to bring about systematic exchange, because it cannot manifest itself as itself in production (Fleetwood 2000, 177). Products created by ICP labour cannot be materially manifested in SAU labour: they are varied, being classified into different sorts in terms of their particularities. Hence, produced commodities represent only ICP labour. Therefore, Fleetwood argues that there is a contradiction in production: on the one hand, SAU labour struggles to manifest itself in a material; on the other hand, however, it cannot be manifested through products created by ICP labour.

The contradiction between ICP labour and SAU labour is converted into a conflict between use value and value in the commodity. Suppose there is a direct exchange between commodity A and commodity B. Commodity B acts as the form of the value of commodity A. Hence, it is a particular equivalent of the value of A. The direct exchange between commodities, however, is restrained by particular use value of A and the use value of B. Thanks to this restriction, direct commodity exchange does not facilitate the systematic evaluation of commodities. Fleetwood (2000, 181) introduces the concept of money. Money is a commodity which acts as the universal equivalent form of value: 'Its bodily shape is immediately recognised as the value shape, or shape of value' (Fleetwood 2000, 187). Systematic evaluation of produced commodities and the manifestation of SAU labour are realised by money. Since systematic evaluation is the precondition of the co-ordination between labouring activities in a capitalistic society, this implies that money is required for capitalistic production.

Fleetwood's reading of the labour theory of value concerns the three issues I considered in Chapter One and Chapter Two. The first is Marx's introduction of the concept of value through commodity exchange in the first pages of *Capital*. The second is the conceptual

transition from commodity to money. The final issue is the calculation of the amount of surplus value in *Capital*.

6.3.2.1 Does Fleetwood Defend Marx Against Critique?

Let us evaluate Fleetwood's view of the first issue. In Chapter One, I discussed the critique of Marx's introduction of the concept of value. I will assess Fleetwood's interpretation of Marx by answering the question: does Fleetwood defend Marx against these critiques? Critics state that Marx attempts to justify this concept by deducing it from the account of commodity exchange; nevertheless, Marx's strategy does not succeed. For one thing, scholars, such as Cutler, Hindess, Hirst and Hussain, hold that Marx provides 'the third thing' argument. Firstly, the linkage between commodity exchange and value presupposes that the exchange between two commodities is translated into an equation. For instance, if x amount of commodity A exchanges with y amount of commodity B, then the equation, ' x commodity A = y commodity B', is formulated. Nevertheless, 'it is by no means inevitable that exchange be conceived as an equation' (Cutler et al. 1977, 13-14). For another, Marx lays the ground of the equation in the equivalent properties of commodities. This property, according to Marx, can only be that of the commodities being the product of labour. Nevertheless, this argument is weak. Marx does not explain why the common property cannot be something like the price

determined by the agents in an exchange. In addition, scholars, such as Böhm-Bawerk (1898), argue that Marx's theory commits to a logical fallacy: changing the subject. Being valuable cannot be the property of all commodities, but rather some commodities being produced. The argument by Marx proceeds from all exchangeable goods. In order to deduce the concept of value, however, Marx replaces all exchangeable goods with some goods produced by labour.

Fleetwood's interpretation vindicates the critique of the logical fallacy of changing the subject. Firstly, he states that Marx does not proceed from only commodity exchanges. The starting point of Marx's exploration is his capture of a fact: labouring activities by isolated producers appear as the relationship of commodities. Marx put forward a question: why does this fact emerge in a capitalistic society but not in a non-capitalistic one? This question presupposes a linkage between production and exchange. Given a critical realist ontology of a society, Fleetwood then identifies Marx's next step: digging out the socio-economic structures bringing about this specific fact in capitalism. This structure is the precondition of the co-ordination between labouring activities. Assisted by the idea of contrast explanation, Fleetwood maintains that the capitalistic socio-economic structure revealed by Marx is systematic exchange. Marx's introduction of the concept of value follows the identification of

the exchange between products. Therefore, Marx does not substitute all goods with produced goods when he presents the concept of value.

The interpretation by Fleetwood, however, does not evade the critique of ‘the third thing’ argument. According to Fleetwood, systematic exchange between products implies the equivalence of produced commodities. To quote Fleetwood,

The systematic exchange of commodities involves the systematic evaluation of these commodities, that is, the assignment of appropriate value magnitude or exchange values. (Fleetwood 2000, 176)

The systematic (as opposed to the accidental) evaluation of commodities implies that the very different objects that are produced and exchanged are commensurable, and of course, commensurate. To write, for example, two guns equals twenty coats is, quite literally, nonsense (Carling 1986:60). Guns and coats are, by their natures, incommensurable entities, and so one needs to look elsewhere to find the nature of their commensurability. (Fleetwood 2000, 176)

Several questions arise here. Firstly, why does systematic exchange presuppose the commensurability of commodities? Secondly, why must the commensurability of commodities be ascribed to their being products of labour? Fleetwood does not answer these questions. For one thing, in his view, the commensurability of commodities is implied by the systematic evaluation of commodities, which is implied by commodities being systematically exchanged. Fleetwood, however, does not clarify the meaning of ‘systematic’. If this concept

means only that every produced commodity is assigned to an exchange value, I cannot see the necessary connection between commensurability and systematic exchange. Firstly, direct exchange between products is compatible with the state that, notwithstanding the absence of commensurability, every product is involved in exchange and has exchange value. Secondly, Fleetwood does not provide any argument that the nature of commodities' commensurability is their being the product of labour. In 'A Marxist Theory of Commodity Money Revisited', subsequent to the conclusion of the commensurability of commodities, Fleetwood (2000, 176) states, 'in Marxist economics, incommensurable entities are rendered commensurable, because they are products of human labour'. This statement demonstrates his approval of Marx's concepts – it does not justify them. As a consequence, Fleetwood does not argue for the necessary connection between human labour and the commensurability of produced commodities. Opponents could state that a producer has a particular exchange value (or money price) in his/her mind when he brings his product to market. This price becomes a fact when products find a buyer (Fleetwood 2000, 181). This articulation informs us that exchange value presupposes two elements: the first is the settlement of price by a seller in his mind; the second is the agreement between a buyer and a seller. Both elements relate to agents.

6.3.2.2 The Hegelian Stance of Fleetwood's Theory

The second issue is of the transition from commodity to money. Fleetwood states that he provides an argument for retaining Marx's theory of commodity money as a powerful *explanation* of money.¹³⁶ Nevertheless, I do not think Fleetwood successfully argues that Marx provides an *explanation* of money, because his reading is Hegelian. I will argue this by proceeding from a contradiction in his theory. In 'A Marxist Theory of Commodity Money Revisited', Fleetwood states that the contradiction between ICP labour and SAU labour is *generated* by systematic exchange. He states,

Labouring activity is co-coordinated in a system of commodity production and exchange. The *peculiarities* of this system *generate* a contradiction in labouring activity, that is, between the individual, concrete and particular ways in which labouring activity is actually performed, and the social, abstract and universal form which it (strives to) adopt. (Fleetwood 2000, 174)

According to these statements, it is concluded that in Fleetwood's view, systematic exchange causes the contradiction between ICP labour and SAU labour. The emergence of money solves this contradiction. Nevertheless, Fleetwood also states that if the contradiction

¹³⁶ Fleetwood states: 'Marx's theory of commodity money, an argument can be made for retaining it as a powerful explanation of money' (2000, 174).

between ICP labour and SAU labour is not solved, then systematic exchange cannot occur.

To quote him,

Without an appropriate form, however, the potential cannot become actualized and SAU labour cannot render incommensurable entities commensurable. Without this, once again, the systematic evaluation of commodities cannot occur; the systematic exchange of commodities cannot occur; and hence labouring activity cannot be co-ordinated. (Fleetwood 2000, 177)

Herein lies the fundamental contradiction of the capitalist system. Labouring activity cannot be co-ordinated in the form in which it is actually performed (ICP) and in which it manifests itself. Labouring activity can be co-ordinated if it adopts the form of SAU labour, but SAU labour cannot manifest itself as itself. At the same moment that ICP labour adopts the SAU form, the latter is itself striving to adopt another form. SAU is, as it were, struggling to find an appropriate manifestation. (Fleetwood 2000, 178)

According to this articulation, the solution of the contradiction between ICP labour and SAU labour is the precondition of systematic exchange. Therefore, systematic exchange cannot generate this contradiction. I think the inconsistency in Fleetwood's theory is attributed to his concepts of SAU labour. In Fleetwood's view, systematic exchange is the precondition of SAU labour, it thus facilitates the contradiction between SAU labour and ICP labour. This is demonstrated in his definition of SAU labour. The meaning of SAU labour is a mixture.

Firstly, the concepts of SAU labour characterise the commonality of labouring activities. To be specific, despite being distinguished in terms of particular products, individual labouring activities are classified as labouring activities. To quote Fleetwood (2000, 177), ‘Concrete and individual labour is particular in the way lions and tigers are particulars. Social and abstract labour is universal in the way animal is a universal’. According to this metaphor, the relationship between concrete labour and abstract labour is a genus-species relationship: concrete labours are classified as the same kind in terms of their common features. In addition, Fleetwood states that ICP labour is insufficient to ‘render incommensurable entities commensurable’, because it is bound up with the diversity and particularity of products. It can then be inferred that the commensurability of products must relate to the commonality of products.

Furthermore, SAU labour is the social form adopted by labouring activities. Given systematic exchange, isolated and particular labouring activities become parts of the productive field.¹³⁷

Fleetwood provides an example: the activities of tailoring are done by thousands of tailors in

¹³⁷ Fleetwood (2000, 176) states: ‘Labour is social in the sense that the labouring activity of an isolated individual is related to the labouring activity of many others via the commodities they each produce ... This labouring activity is social, despite the fact that the individual tailor has no direct relations with any of the other tailors, because his or her labouring activity is indirectly co-ordinated via the systematic exchange of their commodities.’

thousands of different spatio-temporal locations. Although one tailor is not in a direct relation with other tailors, his activities are indirectly co-ordinated with others *through systematic exchange*. As a consequence, systematic exchange is presupposed by SAU labour. An individual activity is social, because it becomes involved in a whole through systematic exchange. To this extent, ICP labour and SAU labour are two aspects of labouring activities: ‘particular labour doubles into a unity of itself and universal labour’. Following this, if there is a contradiction between SAU labour and ICP labour, then this contradiction is internal to a produced commodity.

Finally, SAU labour means more than the sameness of, and the social form adopted by, isolated activities; it stands for the power beyond isolated activities. In ‘A Marxist Theory of Commodity Money Revisited’, Fleetwood states,

Concrete and individual labour is particular in the way lions and tigers are particulars. Social and abstract labour is universal in the way animal is a universal, although unlike animal, social and abstract have a material existence. (Fleetwood 2000, 177)

This process of abstraction is not an epistemic matter (not something economists do in theory), rather, it is an ontic matter (something that occurs in reality). And it happens, ultimately, via the market. (Fleetwood 2000, 177)

The question arises regarding the material existence of SAU labour and the process of abstraction being an ontic matter. In the footnote of this article, Fleetwood clarifies the meaning of the material existence of SAU labour by citing Arthur's concepts in 'Dialectics and Labour'. In Arthur's view, individual labours become universal labours of the society through equating themselves to each other through the exchange of products as values. This is the abstraction of labours through which private labours become social. The result of this abstraction is the formation of the unity of individual value-creating labours. As a consequence, by stating that 'the process of abstraction is an ontic matter', Fleetwood means that through systematic exchange, particular labours are equated in terms of their sameness. A unity which consists of private labours but negates their differences emerges in the process of abstraction.

With respect to Fleetwood's definition of SAU labour, systematic exchange is taken for granted when he states that isolated labours adopt social forms and labour becomes abstract through the market. If these senses of SAU labour are eliminated, then the dilemma mentioned at the beginning will be dealt with. Herein lies the question: why does Fleetwood define SAU labour in this way? What is the role of SAU labour in his theory?

The concept of SAU labour is introduced after Fleetwood concludes that ICP labour cannot render incommensurable commodities commensurable. Fleetwood states,

Labouring activity is actually performed by isolated individuals, and is concrete and particular in the sense that gunsmithing is a completely different activity from tailoring. As such, the various labouring acts necessary to make guns and coats are as incommensurable as the products themselves. Being the products of individual, concrete and particular labour, then, is not sufficient to render incommensurable entities commensurable. (Fleetwood 2000, 176)

According to these statements, ICP labour cannot render the commensurability of commodities, because it characterises the particularities and differences of labouring activities. As a consequence, if SAU labour could have this function, it then stands for the sameness of labouring activities. With respect to the previous articulation, the sameness of labouring activities is one aspect of the sense of SAU labour. In addition, it does not presuppose the systematic exchange. Therefore, the question arises as to why Fleetwood defines SAU labour in terms of systematic exchange. Systematic exchange is presupposed by SAU labour, because it is important to the argument that ICP labour and SAU labour are essentially in contradiction. This contradiction is necessary to the introduction of the concept of money.

In Fleetwood's view, the systematic exchange between produced commodities presupposes their commensurability; that is, they are measurable by the same standard. Fleetwood attributes the commensurability of a commodity to SAU labour. Therefore, SAU labour has 'the potential to render incommensurable commodities commensurable' (Fleetwood 2000, 177). Despite this, the realisation of this potential is hindered by ICP labour, because SAU labour 'cannot manifest itself as itself' (Fleetwood 2000, 188). As a consequence, ICP labour and SAU labour are in contradiction, because SAU labour strives for self-manifestation and ICP labour obstructs this manifestation.

I think there is a gap between the realisation of the potential of SAU labour and the manifestation of SAU labour, although both of them are compatible with a Hegelian reading of Marx. According to the former, only with respect to systematic exchange, SAU labour conflicts ICP labour. The definition of SAU labour is irrelevant to systematic exchange. According to the latter, however, SAU labour *per se* is contradictory with ICP labour. The emergence of SAU labour relies on systematic exchange.

Let us consider the realisation of the potential of SAU labour first. Systematic exchange presupposes commensurability. Isolated, concrete and particular labour cannot render this

commensurability, because it characterises the differences between labouring activities. As a replacement, SAU labour, the commonality of commodities, plays this role. With respect to the commonality of one commodity with others, this commodity is exchangeable with all other commodities. Nevertheless, the realisation of this capability is hindered by its particularities. The expression of this contradiction in exchange is the contradiction between value and use value. According to Fleetwood, 'as values, commodities are qualitatively identical. This is what makes commodities commensurable'. It also renders one commodity capable of expressing the value of all other commodities. Nevertheless, the occurrence of commodities exchange is restricted by their use value. Suppose there is an exchange between commodity A and commodity B, it must then be the case that the use value of B satisfies the need of A's owner, as does the use value of A satisfy B's owner. As a consequence, with respect to direct commodity exchange, a commodity expresses only some commodities' values. The emergence of money transfers this contradiction between use value and value. Money exists independently of value. In exchange, the natural properties of money do not satisfy dealers' needs, therefore it does not have use value in exchange. The only usefulness of money is to exchange it with other commodities, thus expressing the value of commodities.

This strategy is compatible with Rosdolsky's reading of Marx. In Chapter One, I stated that in Rosdolsky's view, the exchange between produced commodities presupposes value and use value. The former indicates the commonality of produced commodities: being the products of human labour. The latter characterises the particularities of commodities, and thus is linked with the concrete labour. Value and use value are in contradiction. By virtue of value, a product can be exchanged with all other products. Nevertheless, the realisation of this ability is hindered by its use value, in that direct commodity exchange occurs only when the use value of this commodity satisfies the need of the other person who owns the commodity required by its owner. The emergence of money solves this contradiction. The problems of this interpretation are similar to the problems of Rosdolsky's (see Chapter One). Firstly, it is difficult to defend that SAU labour *per se* is in a contradiction with ICP labour. For one thing, SAU labour stands for the affinity of one labouring activity with others, and ICP labour for its particularities. For another, only with respect to systematic exchange, it is argued that SAU labour is a potential for systematic exchange, whereas ICP labour is not. Only with respect to systematic exchange, it is argued that a labour activity, as SAU labour, is capable of rendering commensurability, while the realisation of this capability is hindered by its particularities. As a consequence, the conflict between SAU labour and ICP labour is identified only with respect to systematic exchange. Secondly, the contradiction between

SAU labour and ICP labour is not established even with respect to systematic exchange. The particularity of a labouring activity is compatible with its being the standard of systematic exchange, and so is the use value with a universal equivalent. We could imagine that in a market, a kind of product is required by the owners of all other commodities. Therefore, this kind of product is exchanged with all other commodities. The use value of this kind of commodity, as well as the particularity of the activity producing it, contributes to the situation that it is the universal equivalent of the values of all other commodities.

In Fleetwood's theory, there is another way to argue for the contradiction between ICP labour and SAU labour. This contradiction is ascribed to the manifestation of SAU labour. To quote Fleetwood,

First, the material distinctiveness of each act of ICP labouring manifests itself both as itself (in the sense that one can actually observe these acts), and in the form of the particular commodity it produces. When one observes the material distinctiveness of a commodity, one is indirectly observing the ICP labour that produced it. (Fleetwood 2000, 177)

SAU labour, while having the potential to render incommensurable commodities commensurable, has no material distinctiveness. It can neither manifest itself as itself, nor can it manifest itself in the form of a particular commodity. SAU labour cannot manifest itself as measurable amounts of labour embodied in a commodity because only hours of ICP labour are observable, and hence measurable. (Fleetwood 2000, 177)

Fleetwood does not explain the relationship between the realisation of the potential of SAU labour and the manifestation of it. The latter means that one could indirectly observe something through an observable object. For instance, we could indirectly capture living conditions in the 19th century through a painting. Therefore, it could state that living conditions in the 19th century is manifested through a painting. Fleetwood's articulation also presupposes that SAU labour is more than the qualitative sameness of labouring activities. Although the amounts of time are different, all labouring activities take time. If the meaning of SAU labour is exhausted by the qualitative sameness of labouring activities, all activities could be considered as the expression of this sameness. Nevertheless, Fleetwood rejects this notion; he states that, 'only hours of ICP labour are observable, and hence measurable'. With respect to my articulation of the concept of SAU labour, it is argued that only the third aspect of this concept supports the notion that SAU labour is more than the qualitative equivalence of labouring activities. SAU labour is the power of a unity which emerges from systematic exchange and is beyond labouring activities. Correspondingly, the conflict between value and use value is between a unity and its constituents. This power of a unity strives to express itself through a distinctive material; the products of isolated labouring activities cannot be such material. Finally, the emergence of money solves this contradiction.

My reading of Fleetwood will be strengthened by referring to Arthur's theory which influences Fleetwood's conceptualisation of SAU labour. In *Dialectics and Labour*, Arthur states, firstly,

Just as heavy objects can be said to have the same weight, and function as weights independently of their other properties, so commodities share the same value and function in expressions of value merely as value without reference to their various other properties. (Arthur 1979, 103)

Nevertheless, value does not merely stand for the qualitative equivalence of produced commodities but also a unity beyond individual commodities. To quote Arthur,

Abstract labour provides not merely a measure (socially necessary labour-time) but also the social substance of value. In the weight case it is individually embodied mass which is represented. In our case, commodities are bearers of social relations. (Arthur 1979, 103)

Arthur's concepts in this article are different from his later thoughts (see Chapter One). In his later thoughts, the concept of value is no longer bound up with labour.¹³⁸ Despite this difference, Arthur is expressive of the notion that through commodity exchange, some power

¹³⁸ According to Arthur (2004, 93-94), value is 'a sort of homogenous matter underlying diverse bodily shapes of commodities, while labour is not common to everything in commodity form'.

which is beyond individuals (commodities or labours) emerges and attempts to manifest itself through a material. Fleetwood's reading of Marx is similar to Arthur's theory, because he states that SAU labour is beyond ICP labour and strives for self-manifestation. The problem of this strategy is its failure to address the question: why does the power beyond individuals have to manifest itself as itself? In Arthur's latter thoughts, the conclusion that value form is necessarily self-grounded is derived from this ontological description. Value form is a result of the practical activity of exchange, and therefore it requires a material bearer in the shape of boots at all times (Arthur 2005, 191). For Fleetwood, this question is avoided by linking the manifestation of SAU labour with the realisation of the potential of SAU labour. As I demonstrated, however, this strategy is not successful. Firstly, Fleetwood argues that SAU labour is the condition of systematic exchange, whereas the argument for the manifestation of SAU labour presupposes systematic exchange. Secondly, in Fleetwood's view, Marx explains money in terms of its solution of the contradiction between ICP labour and SAU labour. The solution of this contradiction results in systematic exchange. Nevertheless, this contradiction is defended by the idea that the SAU labour is a power which emerges from systematic exchange. Therefore, it presupposes systematic exchange. Finally, with respect to the realisation of the potential of SAU labour, Fleetwood cannot argue that SAU labour and ICP

labour are in contradiction. Neither could he argue that SAU labour is beyond individual labouring activities.

6.3.2.3 The Exclusion of Socially Necessary Labour Time by Fleetwood

In Fleetwood's (1997, 141) interpretation, Marx attempts to reveal the 'essential nature of a specifically capitalist socio-economic formation'. Proceeding from labouring activities, the essence of capitalism is the co-ordination between labouring activities being realised through the systematic exchange between products. To be specific, product B cannot be created unless its producer gains the requirements for its production from somewhere else. In capitalism, the achievement of these factors is realised through exchange: a sum of money passes from firm B to firm A (Fleetwood 2001a, 70). I think this characterisation of capitalistic relations of production is different from that put forward by Marx. In Marx's view, the essence of capitalistic relations of production is the exchange between labour power and capital. Fleetwood might argue that the exchange between requirements for production and money includes a species exchange between labour power and capital. Therefore, his interpretation opens up to an account of the labour market. This, however, bypasses a crucial concept in *Capital*, which is the importance of socially necessary labour time to the exploitation of surplus value.

In 'Marxist Theory of Commodity Money', Fleetwood identifies the absolute price of produced commodities with exchange value, and exchange value with the amount of socially necessary labour time. In Marx's theory, however, these three concepts are differentiated. The value of produced commodities combines two aspects: a qualitative one and a quantitative one. The former underlines that the essence of value is abstract labour; the latter states that the magnitude of value is the amount of socially necessary labour time. The exchange value of a produced commodity is its relative price: the exchange ratio of it with another produced commodity. The exchange value of a produced commodity is different from its absolute price, the bearer of which is money. The magnitude of value (or the amount of socially necessary labour time) is not necessarily the same as absolute price.

Corresponding to abstract labour and socially necessary labour time, we could find the concepts of SAU labour and SAU labour time in Fleetwood's theory. SAU labour corresponds to the value of a produced commodity – to the extent that both of them stand for the equivalence of produced commodities. To quote Fleetwood,

To be qualitatively identical means a commodity must subordinate the bodily shape that makes it different from any other commodity. The bodily shape is subordinated when a

commodity adopts the value form. As values, commodities are qualitatively identical. This is what makes commodities commensurable. (Fleetwood 2000, 181)

The quantitative aspect of SAU labour is SAU labour time which, according to Fleetwood, is reflected by the exchange value. As Fleetwood states,

To be quantitatively identical means a commodity reflects a certain magnitude of SAU labour, that is, a socially-necessary magnitude. This is what makes commodities not only commensurable, but also commensurate. As exchange value, commodities are quantitatively equal. (Fleetwood 2000, 181)

All one can say is that this material entity has the potential to adopt the value form. The producer probably has a particular exchange value magnitude in mind. It becomes a value, however, only when the entity is placed on the market and finds a buyer, because this act registers the fact of the exchange value magnitude. (Fleetwood 2000, 180)

Therefore, in Fleetwood's theory, the amount of SAU labour time is the exchange value.

Furthermore, Fleetwood defines exchange value as the absolute price: the amount of money expended in exchange.¹³⁹ For instance, if one person pays £3 to purchase a coat, then the exchange value of a coat is £3. It infers that the amount of SAU labour time is the absolute price of produced commodities. As a consequence, the amount of socially necessary labour

¹³⁹ In a 'A Marxist Theory of Commodity Money Revisited', Fleetwood defines exchange value as money price. In an endnote, Fleetwood claims that the assignment of appropriate exchange value should be written as the assignment of appropriate money price (2000, 190).

time is the amount of the absolute price designed by individual capitalists and realised through exchange. It does not *represent the average level of social production*.

The magnitude of value (or the amount of socially necessary labour time) is excluded by Fleetwood in his latter article: ‘What Kind of Theory is Marx’s Labour Theory of Value? A Critical Realist Inquiry’. In this article, Fleetwood advocates a qualitative version of the labour theory of value. As I demonstrated previously, Marx’s labour theory of value is interpreted as an explanation of the phenomena that in capitalism, the relationships between producers are expressed as the relationships between produced commodities. This phenomenon is explained in terms of the fact that in capitalism, labouring activities are co-ordinated through exchange. As Fleetwood states,

It appears that this qualitative version of the LTV [labour theory of value] is explanatorily powerful and relevant. It explains how relations between people (as producing units) appear in the (value) form of a relation between things (commodities) by invoking the ‘deep’ causal mechanisms that facilitate production and exchange under capitalism. (Fleetwood 2001a, 72)

According to this interpretation, Marx’s labour theory of value is reduced to an explanation of fetishism: the social relation between men assumes the form of a relationship between things.

This simplification of Marx's labour theory of value is explained by Fleetwood's rejection of the employment of mathematical methods in social explanation. In Fleetwood's terms, the general form of mathematic methods is a function: $y = f(x)$. Like Lawson, Fleetwood characterises this approach as deductivism, which adopts the statement, 'whenever event A then event B', in explanation. To quote Fleetwood,

Central to the way the deductivist mode of theorising is operationalised are functional relations, generalised as $y = f(x)$. These can also be expressed as laws and styled '*whenever event x then event y*'. (Fleetwood 2001a, 51)

This approach, in his terms, implies empirical realism.¹⁴⁰ The adherents of empirical realism state that the essence of causal law is the constant conjunction of events: whenever event A happens, then event B follows. Empirical realism is the opposite of critical realism. For one thing, critical realism argues for the stratification of the reality. Causal laws lay their ground in the real domain where generative mechanisms operate. Events, as well as their conjunctions, are situated at the level of the actual. Another reason that empirical realism is

¹⁴⁰ To quote Fleetwood, 'The deductivist mode of theorising get what intellectual support and justification it has, by being consistently rooted in: a positivist philosophy of science; an empirical realist ontology of atomistic events; the notion of causality as mere regularity or constant conjunction; and the notion of law as Humean' (2001b, 204-205).

different is that critical realism argues that the world is an open system, which is defined in terms of the absence of the patterns of events. Events patterns perform only in closed systems; closed systems are the condition to which mathematic methods are applicable.¹⁴¹ Concerning society, critical realism states that there exist social structures, and social reality is open. As a consequence, the adoption of critical realist ontology entails the rejection of mathematical methods in social explanation.¹⁴²

The rejection of mathematical models by Fleetwood explains his exclusion of the quantitative aspects of the labour theory of value. He states,

Quantitative versions of the LTV [labour theory of value] deal explicitly with the (alleged) quantitative relationship between the expenditure of a quantity of labour power and the resultant commodity value, price of production, market value or market price. (Fleetwood 2001a, 56)

¹⁴¹ As Fleetwood states, ‘Now whilst constant conjunctions of events are clearly fundamental to deductivism, they are exceptionally rare phenomena... however, virtually all of the constant conjunctions of interest to science (including economics) occur only in experimental situations. The point of experiment is to close the system by creating a particular set of conditions that will isolate the one interesting mechanism’ (2001b, 208).

¹⁴² Fleetwood states, ‘The deductivist mode of theorisation suffers from two major flaws. First, a series of problems arise when analysis is couched in terms of closed systems where constant conjunctions of events are allegedly ubiquitous, when socio-economic reality is an open system where such conjunctions are not found’ (2001a, 50).

The quantitative version of LTV states that there is a causal connection between quantities of labour and prices (Fleetwood 2001a, 57). This causal connection is described by mathematical models, such as ' $p = f(I)$ *ceteris paribus*' (Fleetwood 2001a, 57). This mathematical function, according to Fleetwood, implies the statement: 'whenever event I (change in labour input), then event p (change in price)'. This model of LTV thus implies the existence of a constant conjunction of events. It is compatible with empiricism and opposite to critical realism. As a replacement, Fleetwood argues for the qualitative version of the labour theory of value, which excludes any discussion of the quantitative relationship between value, exchange value and price.

I do not think Marx's explanation of surplus value is inconsistent with the application of mathematical functions. Neither is Marx's theory of value reduced to the theory of fetishism. Mathematical functions are compatible with the construction of this theory: they are implied by the theory of surplus value. Firstly, the basic element in explanation, the form of value, is translated into a mathematical function plus some statements about exchange actions. Supposing the form of value, ' x commodity A = z money', is established, this form of value could be translated into:

- (1) A person sells commodity A to gain money.

(2) $z = f(x)$, where z stands for the amount of money, and x for the magnitude of commodity A. This equation is constructed if the socially necessary labour time embodied by them is the same.

Correspondingly, the form of value, 'z money = y commodity B' is translated into;

(1) A person purchases commodity B with the use of money.

(2) $z = f'(y)$, in which y represents the quantity of B and z represents the amount of money. This equation is contrasted when their socially necessary labour time are the same.

The mapping on relationships implied by these two functions represents that the same amount of money represents the same amount of socially necessary labour time; however, the kinds of produced commodities and the magnitudes of them reflected by the same amount of money are different.

Secondly, the calculation of the quantity of surplus value produced by a labour process of a kind of product depends on the equation (not the form of value) between the amounts of values of labour elements:

The magnitude of the value of commodities (x) = the amount of the value of means of production (y) + the amount of the value of labour power (z) + the amount of surplus value (s).

As I clarified in Chapter Two, the formulation of this equation presupposes several forms of value, the objectivity of which relies on what happens in capitalism. Firstly, there is the sale of produced commodities by capitalists. Capitalists gain money by selling their products.

Hence, a form of value is constructed: for instance, x magnitude of commodities = p amount of money. Secondly, capitalists purchase means of production through money. This supports the formulation of another form of value: q amount of money = y magnitude of means of production. Since capitalists also buy labour powers, there is a third form of value: r amount of money = z magnitude of labour power. With respect to them, the equation about surplus value is formulated. Firstly, as I mentioned in Chapter One, despite no direct commodity exchange, the values of different produced commodities are comparable if they exchange with money. Therefore, the comparison between the value of commodities and the value of labour elements is justified. The difference between the quantities of their values is expressed by the equation about surplus value. Secondly, this equation is justified in terms of the labour process of producing commodities. The means of production and labour power are in a causal

relationship with produced commodities. Hence, Marx argues that there is the transformation of value and the creation of new value, the sum of which is equal with the value of produced commodities.

The quantitative aspects of the labour theory of value are essential to Marx's account of capitalism (See Chapter Two). Firstly, it contributes to the explanation of the extraction of surplus value under capitalism. As I demonstrated previously, Marx's explanation is based on a comparison of the magnitude of the value of new products with the total amount of the value of means of production and labour power. Given this, secondly, Marx states that surplus value increases under three conditions. The first is to enlarge the absolute amount of value by extending the working day. The second method is to increase relative surplus value: the rate of surplus value increases by reducing the value of labour power, albeit the working day remains the same. In *Capital*, Marx demonstrates a third situation in which the surplus value exploited by *an individual capitalist* grows. He states that if the productivity of an individual capital is above the social average level, then a capitalist gains more surplus value. As a consequence, the improvement of productivity under capitalism is explained not merely by market competition but also by the gap between individual value and social value.

6.4 Conclusion

Proceeding from the debate between Nielsen and Morgan and Fine, this chapter delineates how critical realism interprets Marx's account of capitalism.

Fine states that critical realism is not critical. For one thing, the characterisation of mainstream economics by critical realism is disputable. For another, critical realism shares a commonality with mainstream economics: the division between methodology and substantive theories. Critical realism is restricted to the issue of methodology, whereas mainstream economics is restricted to substantive theories. As a consequence, mainstream economics is indifferent to critique from critical realism. In addition, critical realism rejects that economics is a separate discipline. The concept is similar to economic imperialism. Critical realism is also not realist, because it does not provide substantive theories of capitalism and capital. The key concepts in critical realism are too abstract to identify the particularities of socio-historical objects. Furthermore, critical realist methodology is trans-historical. This opposes critical realism to Marxism, because the method employed by Marx has a socio-historical context. Nielsen and Morgan defend critical realism against Fine's critique. Central to their argument is that critical realism does not separate methodology from substantive theories. The subject of critical realism is economic theories. It abstracts the

features of mainstream economics and heterodox economics. The method employed by the former is inapplicable to social reality and, therefore, it is criticised by critical realism. In contrast, heterodox economics are supported, because their ontological presuppositions are compatible with critical realism. It is possible that critical realism's effort is ignored by both mainstream economists and heterodox economists. Nevertheless, there is another possibility that critical realism successfully reorients economics. In addition, critical realism does not exclude developing substantive theories of capitalism. There are some critical realists, such as Bob Jessop, who employ critical realist methods and develop Marxism. They could find their position within the boundaries of Marxism, because Marxism is multiple.

I think the arguments by Nielsen and Morgan miss the points made by Fine. For one thing, although there is the possibility that heterodox economics and mainstream economics underline critical realism, a more efficient way to engage economics is to develop substantive theories of economic phenomena. For another, in Fine's view, it is socio-historical context that provides Marx with the conditions to configure his method. Critical realist methodology, on the contrary, is bound up with an ontology of the society in general. Therefore, critical realist methodology is trans-historical. It is universally available whatever the social context

is. If we read Marx's account of capitalism in terms of critical realism, then this account is an example of the application of this trans-historical methodology.

Fleetwood's interpretation of the labour theory of value illustrates how critical realist methodology is applied. I argue that the application of critical realist methodology follows a genus-species and universal-particular approach. Fleetwood argues that Marx supports critical realism, because he argues for the existence of social structures and he attempts to reveal social structure by proceeding from social actions. Based on this general picture of society and methodology, Fleetwood states that the specific social action Marx proceeds from is labouring activities in capitalism, and the specific social structure Marx reveals is capitalistic production. According to Fleetwood, Marx states that what characterises capitalism is that labouring activities in capitalism are organised through exchange. To consider the relation between capitalists and workers, what Marx has to do is to transit from a specific level (exchange relations) to a more specific level (the exchange happening between workers and capitalists) – the labour market. Analogously, if one scholar attempts to reveal a particular labour market in a particular country, then he ought to shift to an even more specific level, identifying the characteristics of that country. As a consequence, the interpretation of Marx by Fleetwood is different from my understanding of Marx. In Chapter

One, I provided a detailed argument which clarifies the configuration of the method by Marx that presupposes capitalist society. Therefore, it is capitalism that provides Marx with the condition to penetrate its own secrets.

Fleetwood misinterprets Marx's labour theory of value. Firstly, his definition of value is different from Marx's. In Marx's theory, 'value', 'exchange value' and 'absolute price' are differentiated. According to Fleetwood, however, these concepts are confused with each other. Secondly, in Marx's theory, the amount of value is determined by socially necessary labour time. The value of a produced commodity stands for something beyond individual producers. Nevertheless, in Fleetwood's view, the value of a commodity is designed by a producer and then realised through exchange. Thirdly, Fleetwood reduces Marx's labour theory of value to an explanation of fetishism, because he excludes the quantitative aspects of Marx's theory. In Fleetwood's view, Marx attempts to explain why the relationships between human labouring activities appear as the relationships between commodities. Marx explains this phenomenon in terms of the particularity of capitalism: in capitalistic society, labouring activities are organised through systematic exchange. The essential aspects of Marx's theory, such as the calculation of surplus value and the different ways to increase surplus value, are excluded.

In addition, Fleetwood attempts to argue that Marx's labour theory of value is a causal explanation. Nevertheless, his interpretation of Marx is Hegelian. Fleetwood argues that the money solves the contradiction between SAU labour and ICP labour. To argue this contradiction, Fleetwood takes a Hegelian strategy. Firstly, like Rosdolsky, he argues that SAU labour is potential for the systematic exchange, because it stands for the commonality of labouring activities, while ICP labour stands for the differences. This contradiction is converted into the conflict between value and use value. Being the bearer of value, a commodity can exchange with all other commodities. Being the bearer of use value, it exchanges with only some commodities. The emergence of money solves this conflict. This argument, as I demonstrated in Chapter One, cannot defend the contradiction between value and use value, as well as between SAU labour and ICP labour. The contradiction emerges only with respect to commodity exchange; it is not between SAU labour in itself and ICP labour in itself. Secondly, like Arthur, Fleetwood states that SAU labour stands for the power beyond isolated labouring activities. This argument could defend the proposition that SAU labour *per se* is in contradiction with ICP labour. Nevertheless, the definition of SAU labour presupposes the existence of systematic exchange – it arouses a dilemma in Fleetwood's theory. On the one hand, the occurrence of systematic exchange is the precondition of the contradiction between SAU labour and ICP labour. On the other hand, however, this

condition is anterior to the occurrence of systematic exchange, because systematic exchange requires money to solve the contradiction between SAU labour and ICP labour.

Conclusion

This thesis has been an assessment of the relationship between critical realism and Marxism.

Critical realists claim that they underpin Marxist economics. Firstly, critical realism uncovers and conceptualises the methodology implicated in Marx's work. The methods taken by Marx, as Fleetwood states, are retrodution and contrast explanation. Marx's theory is an example of the application of critical realist methodology. In addition, critical realism supports Marx's theory. For one thing, Marxist method is justified through critical realist ontology. For another, critical realism disapproves of the enemy of Marxist economics: mainstream economics. It argues that the methods taken by mainstream economists are inapplicable to social reality.

This thesis has argued for the failure of the critical realists' project. The failure of their project is firstly attributed to the deficiency of critical realism. The transcendental arguments for critical realist ontology are problematic: the premises of these arguments are ambiguous; the arguments provided by Bhaskar are circular; and transcendental arguments are unavailable to establish an ontology. As a consequence, the foundation of critical realist methodology is vulnerable. Furthermore, Bhaskar's theory is compatible with methodological

individualism, which he attempts to attack, since his concepts of social structures are vague.

Lawson condemns mainstream economics for employing deductive methods to study open systems, whereas the method suggested by him opens up to deductivism.

In addition, I do not think Marx's account of capitalism is appropriately interpreted in terms of critical realism. Although Fleetwood is not a typical example of how critical realism in general leads its adherents to interpret *Capital*, his theory demonstrates the poverty of trans-historical methodology for Marxist economics. Firstly, Fleetwood's interpretation of Marxism is Hegelian. This prevents him from defending Marx's labour theory of value as a causal explanation. Secondly, Marx's labour theory of value is reduced to an explanation of fetishism. In Fleetwood's reading of Marxism, the explanation of fetishism is in terms of capitalistic mechanism of production: labouring activities are co-ordinated through market exchange. Because Fleetwood is against the employment of mathematic functions, he disposes of Marx's calculations of surplus value. Consequently, Marx's discussion of the methods of increasing surplus value is excluded from social explanation. Thirdly, Marx differentiates the concepts of value, exchange value and absolute price. Critical realism does not defend this conceptual distinction. In Fleetwood's view, the value of a commodity is its exchange value; that is, the absolute price designed by individual producers and realised

through exchange. This results in the primacy of market competition over capitalistic production.

Finally, critical realism considers Marx's account of capitalism as a specification of a method that is universally applicable. Given critical realist ontology, critical realism formulates a method named retrodution. As I have shown, the application of this method is unconditional. It is relevant neither to the concrete objects that scholars examine, nor to the specific social context that scholars locate in.

Marx's account of capitalism does not need a philosophy which vindicates either the theory or the method. As a consequence, critical realist ontology does not reinforce Marxist economics. This standpoint is based on my comprehension of western Marxism, especially Hegelian Marxism. In the end of this thesis, I will assess my interpretation, as well as the critical realist reading, of Marx by referring to the history of Hegelian Marxism.

Hegelian Marxism is a departure from evolutionist Marxism. Evolutionist Marxism vindicates Marx's theory by analogising it with natural sciences. It argues that the dialectical

principles formulated by Hegel are the universal laws of nature and history. Marx captures the dialectic laws of history. As a consequence, the collapse of capitalism is a question of time. Evolutionist Marxism has been challenged since the October Revolution. “The Bolsheviks represented the triumph of consciousness, action, and organisation over the iron laws of history.”¹⁴³ The principles of historical materialism are thus required to be re-formulated to comprehend the October Revolution, and Hegelian Marxism emerges in this situation. Contrary to evolutionist Marxism, it firstly involves an estrangement from natural sciences. This frees the transformation of capitalism from an iron law which undermines the importance of agents. Secondly, it starts from an emphasis of the Hegelian principle that the subject and object become identical thorough practice. If the subject-object identity is the criterion of truth, it then implies that truth is a process which finally overcomes the difference between the subject and the object, between the theory and the object of the theory. The history of Hegelian Marxism is, to some extent, the history in which this principle breaks down.

According to Lukács, the subject-object identity is bound up with the concept that historical process is a totality. Given the priority of this principle, the divergence between the subject

¹⁴³ Callinicos (1985), p. 70.

and the object is a moment of historical process. This divergence is overwhelmed by social practice. These concepts facilitate the understanding of the October Revolution. The function of the proletarian class in overthrowing capitalism is supported by its objective position in a society and the contradiction of the productive force with the production relations. The proletarian class is therefore identified as the subject in history which is able to break capitalism. However, the process of reification prevents the proletariat from being conscious of its revolutionary position. Therefore, scholars who endorse Marxism should be the prophets who direct the working class to know the truth.

Some of Lukács's concepts are taken over by the Frankfurt School in its early stage.

Confronting the defeat of the labour movement in Germany, the Frankfurt school distances social theory from the consciousness of the working class. In Lukács's theory, Marxists are the prophets of the fortune of the working class. They foresee the role of the working class, as they give an insight into the contradiction between productive forces and relations of production. They should enlighten workers and inspire the consciousness of the working class. The early Frankfurt School broke the linkage between social theory and the consciousness of working class. The working class is not determined to be the agent bringing about the collapse of capitalism. The agent of social transformation is suspended.

Nevertheless, the early Frankfurt School does not reject the notion that the subject and the object, the social theory and society become identical through social practice by social agents. This suspension was given up in 1937 when Horkheimer put forward Critical Theory. As replacement, the theoretical work which criticises a given society by the Frankfurt School is a kind of social practice at a certain historical stage. Correspondingly, theorists who formulate Critical Theory are the subject at this stage. This standpoint underlines that the difference between subject and object is an inevitable moment of history. Nevertheless, it opens to the hope that the identity between subject and object will be realised in the future. This slight hope was dead around 1940s. In *Dialectic of Enlightenment*, Horkheimer and Adorno criticise the Hegelian dialectic which ends with the identity between the subject and the object. As Callinicos states, ‘the concept of difference came to play an important role in Marxist philosophy. Reality, it was argued, is inherently heterogeneous; any attempt to reduce it to a homogeneous totality, the expression of some single unifying principle, must be resisted’. Correspondingly, production is not where human emancipation is embedded. Rather, it is a form of eliminating differences and conquering nature.

Hegelian Marxism thus shifts from the acclaim of the subject-object identity to the approval of this difference. The question avoided by it is whether a theory truly or scientifically

conceptualises its object – a spatio-temporal society. This question is overlooked at the beginning of Hegelian Marxism. For one thing, for Lukács, science is of the universal law of history. The rejection of the universal law implies the refusal of science. Also, the difference between theory and its object is secondary. From the viewpoint of historical totality and subject-object identity, this difference, which acts as the mediation of achieving identity, will be eliminated. The exclusion of this question is justified by Critical Theory, not only because the difference between theory and its object is something that should be retained, but also because science is a capitalistic ideology. My reading of Marx is based on my emphasis on this question. Firstly, I do not think a scientific theory must capture a trans-historical law. Secondly, although the configuration of a scientific theory is associated with the ignorance of objects' particularities and differences, this does not imply that this theory distorts or compresses reality. Thirdly, although scientists are restricted and ideologically influenced when they approach the world, it does not imply that scientific theory does not have any certainty. Otherwise, how could we explain the effectiveness of modern sciences and scientific technology? As a consequence, I think it is important to analyse the arguments of Marx and the relationship of his theory with the social world.

With respect to this, I think a critical realist reading of Marx is helpful. Firstly, critical realism makes a distinction between a transitive dimension and an intransitive dimension. The former is about the production of knowledge. It relates to the issues of the influence of social context, such as ideology, upon social agents. The latter is about the relationship of the content of scientific knowledge with the structure of the world. Scientific knowledge is of a causal law, the necessity of which is grounded in the operation model of generative mechanism. Secondly, critical realism argues for the ontological status of social structures. Social scientists attempt to reveal socio-historical structures but not a trans-historical law. As a consequence, the theoretical principles put forward by Marx are fallible with the transformation of society.

Nevertheless, for critical realists, the *method* taken by Marx, retrodution, is generally applicable. Retrodution is available to explore not only all types of society, but also nature. This method is supported by the critical realist ontology of the world, which is established through transcendental arguments. This strategy is similar to evolutionist Marxism. Firstly, like evolutionist Marxism, critical realism is on the side of naturalism. Social sciences are possible because society or history has affinities with nature. Secondly, both evolutionist Marxism and critical realism subsume Marxism under a more abstract ontology. This

ontology is abstract because it captures the commonality between nature and society.

Therefore, finally, the complement of Marx's account directs to the configuration of a

philosophical system. Bhaskar's latter development of critical realism is an example:

dialectical critical realism combines critical realism into a system which, according to

Bhaskar, confirms the ontological primacy of absence;¹⁴⁴ the philosophy of meta-Reality

provides an articulation of spirituality.¹⁴⁵

Unfortunately, the configuration of this philosophy system only serves to weaken Marxism.

Firstly, because the plausibility of Marxism relies on philosophy, it is easily questioned by

rejecting philosophical theories. My critique of critical realism's transcendental arguments is

an example. The ontology based on which critical realist methodology is formulated is

powerless because the method that established it is deficient. Secondly, this strategy is

contradictory with a materialist principle in Marx's theory: social being determines men's

consciousness. As I demonstrated in Chapter Three, Bhaskar attempts to make this principle

¹⁴⁴ Bhaskar (1998, *xxii*) states: 'For DCR [dialectical critical realism], dialectic is essentially the positive identification and elimination of absences, whether then conceived as argument, change or the augmentation of (or aspiration to) freedom. For these depend upon the positive identification and elimination of mistakes, states of affairs and constraints, all of which can be seen as involving or depending upon absences. Indeed absence is ontologically prior to, and the condition for, presence or positive being'.

¹⁴⁵ Bhaskar (2010, 172) states: 'In meta-Reality spirituality was now seen as something that is a presupposition not just of religious or more generally emancipatory practices, but of everyday life'.

cooperate with critical realist ontology, as he argues that transcendental arguments are fallible. Nevertheless, he fails because the fallibility of transcendental arguments opens to the rejection of the whole critical realism. Thirdly, Marxism is more like a description rather than an explanation. This is more obvious when we consider dialectical critical realism. In Bhaskar's view, critical realism conceptualises the method taken by Marx to explore a society, and dialectic critical realism clarifies his concepts of dialectic. Central to Bhaskar's dialectic is the concept of absence. This concept is descriptive in that it embraces everything negative, including non-existence, the faults of a theory and the illness in a society. Although it is available to all situations, this concept explains nothing. Correspondingly, dialectic is a description of the processes which absent the absence. As a consequence, I think Bhaskar's dialectic is an ontological reading of the Hegelian system. In Hegel's theory, dialectic, as well as contradictions, refers to categories and their relationships; however, in Bhaskar's theory it stands for something that happens in nature and society.

In Marx's theory, the inversion of Hegelian dialectic must be accompanied with the collapse of the philosophical system; otherwise, materialism will not be established. It implies that Marx's theory and his method cannot be justified in terms of some trans-historical philosophical principles, whether it is realist or not. As a replacement, it ought to argue that

capitalism, in which Marx situates, provides him with the condition to configure the method of social study. Therefore, this thesis explicates that the form of value presupposes the prevalence of commodity production and the exchange between commodities. Marx's explanation of the extraction of surplus value under capitalism presupposes the capitalistic relations of production. In addition, there is a need to argue for the certainty of Marx's theory in another way. Therefore, firstly, this thesis underlines the mathematical functions in Marx's labour theory of value. Secondly, I argue that in *Capital*, the conceptual transition from 'commodity', 'money' to 'capital' is logical. Unlike the Hegelian interpretation, the elementary unit of this transition is not the concepts of an object's property but the model of social action.

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